

FIG. 1

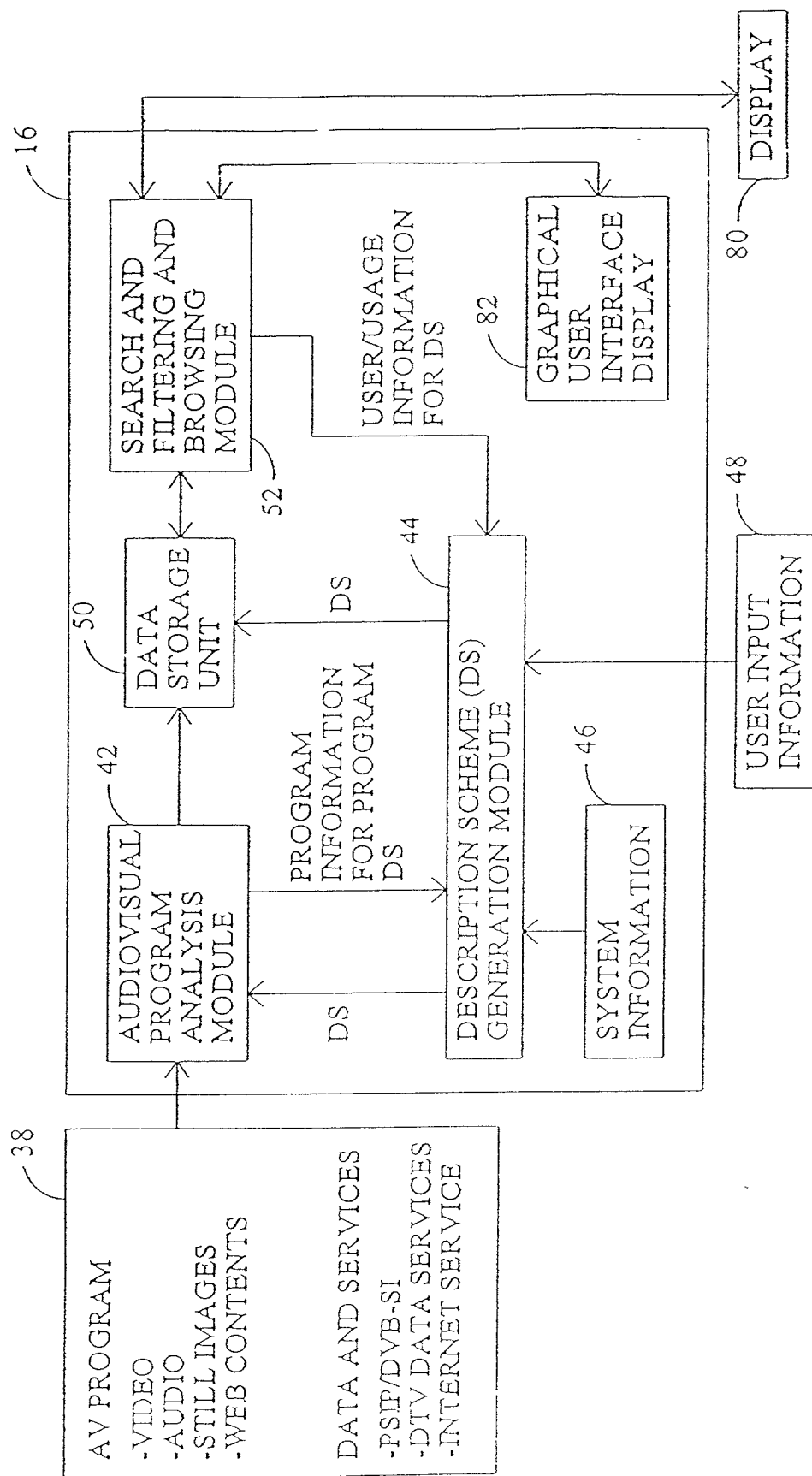


FIG. 2

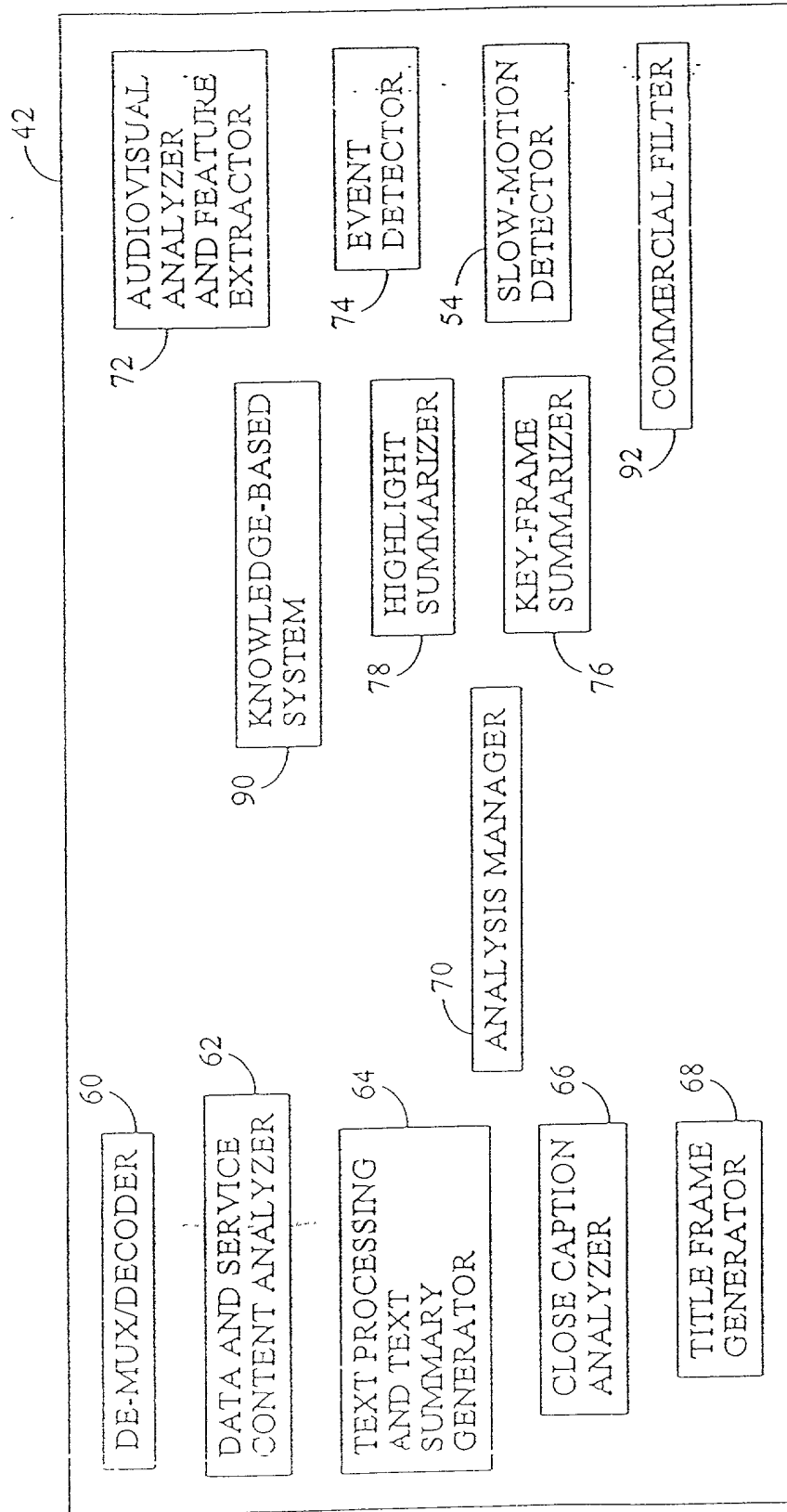


FIG. 3

Thumbnail View (Category)

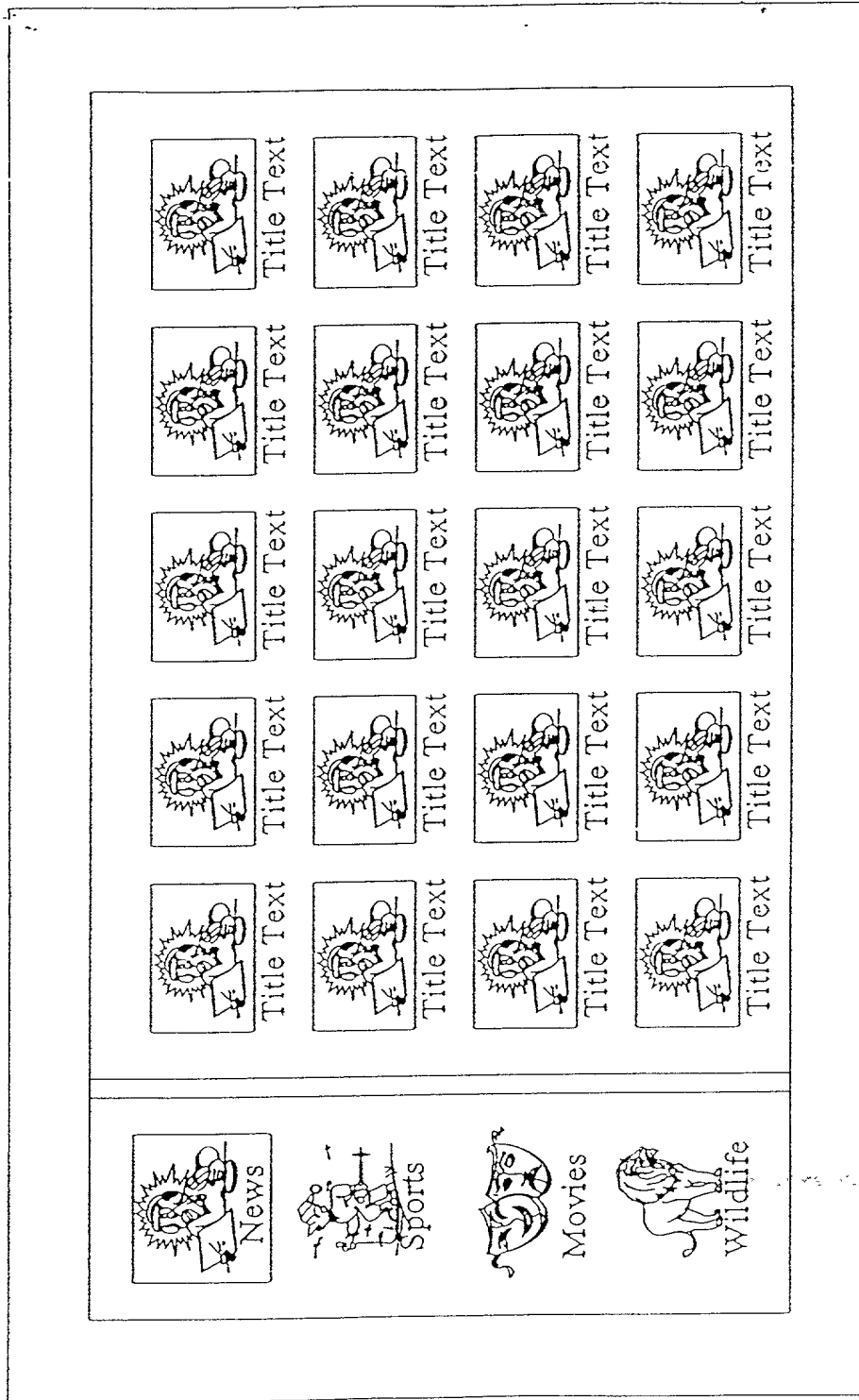


FIG. 4

Thumbnail View (Channel)

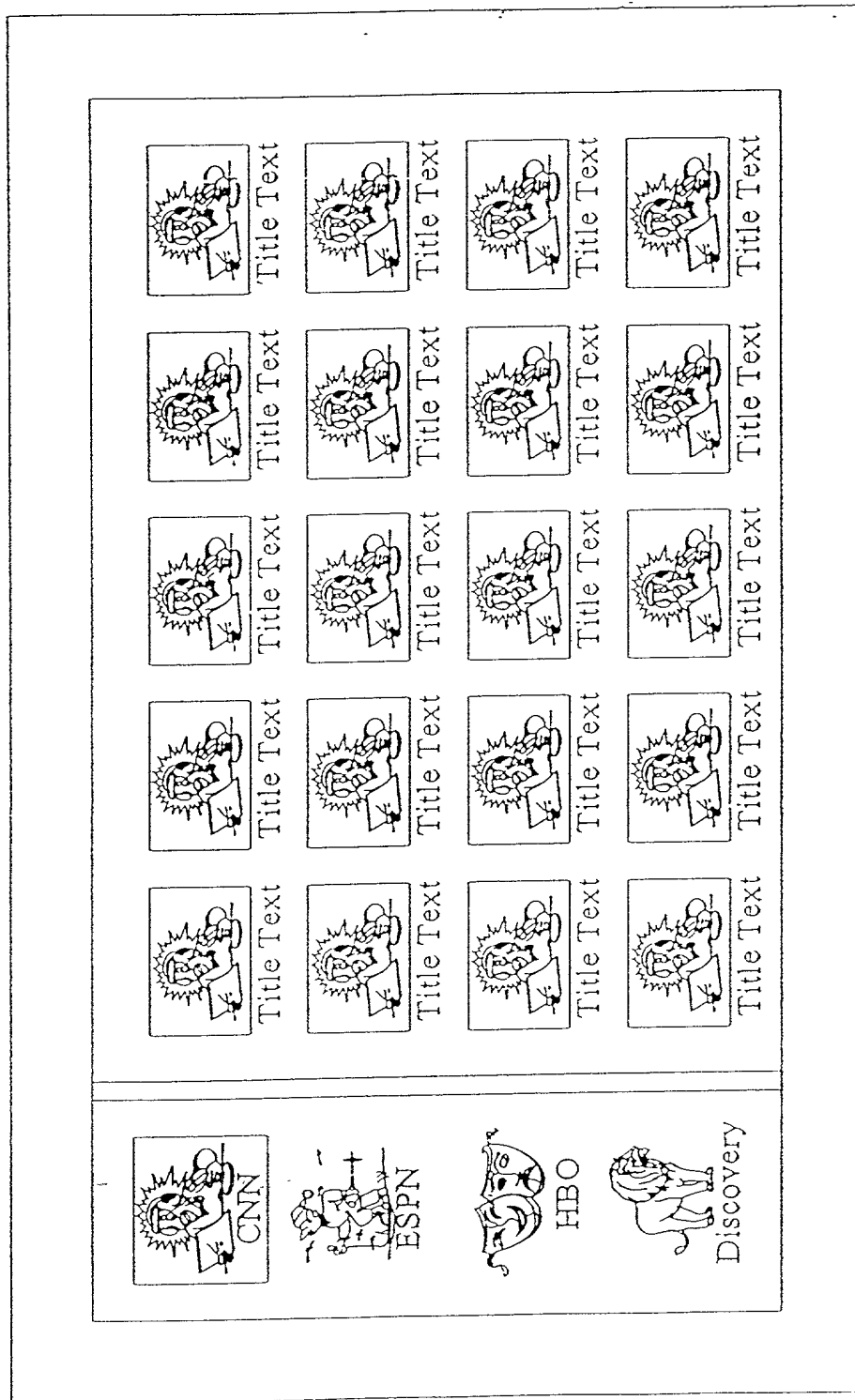


FIG. 5

Text View (Channel)

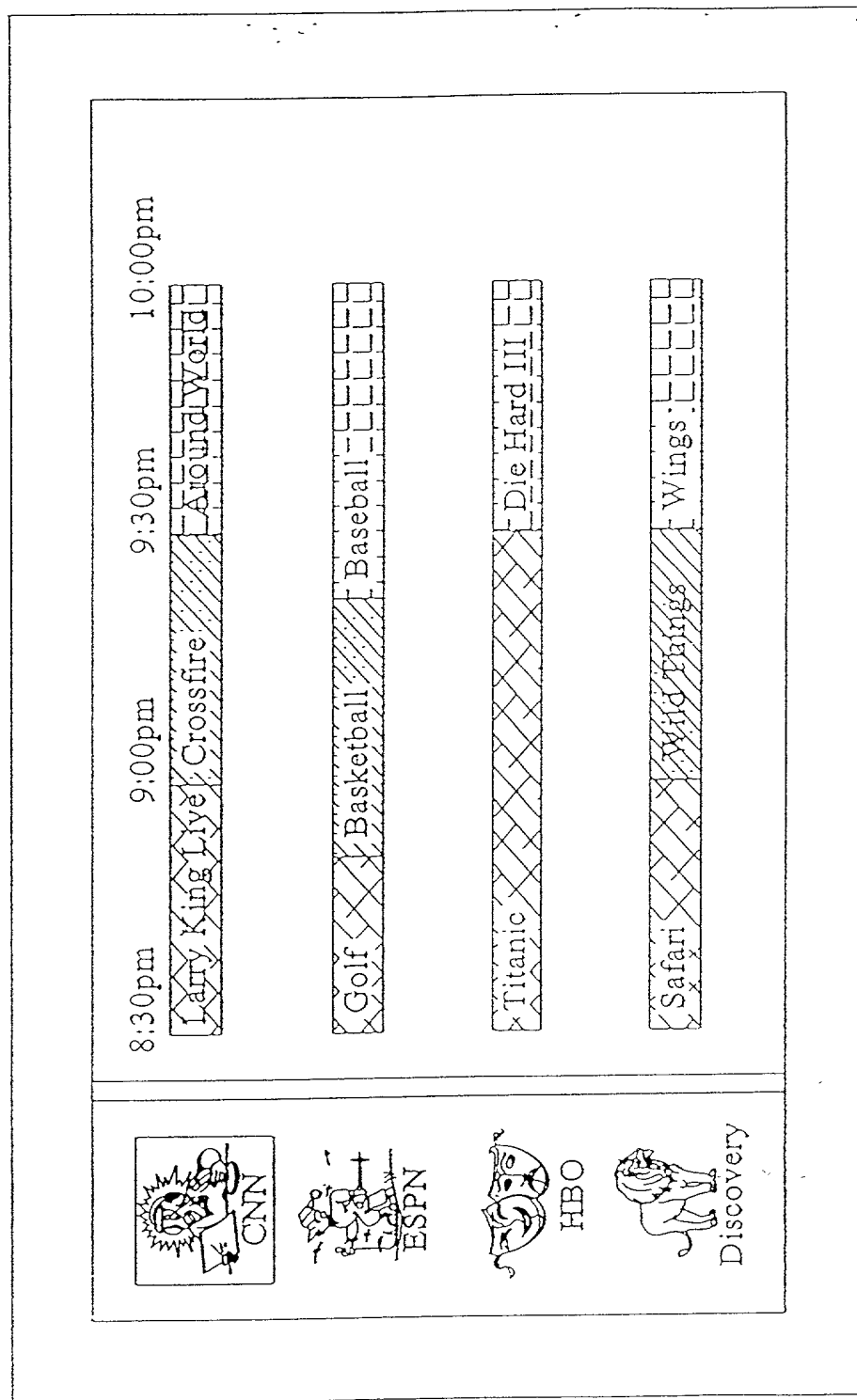


FIG. 6

Frame View

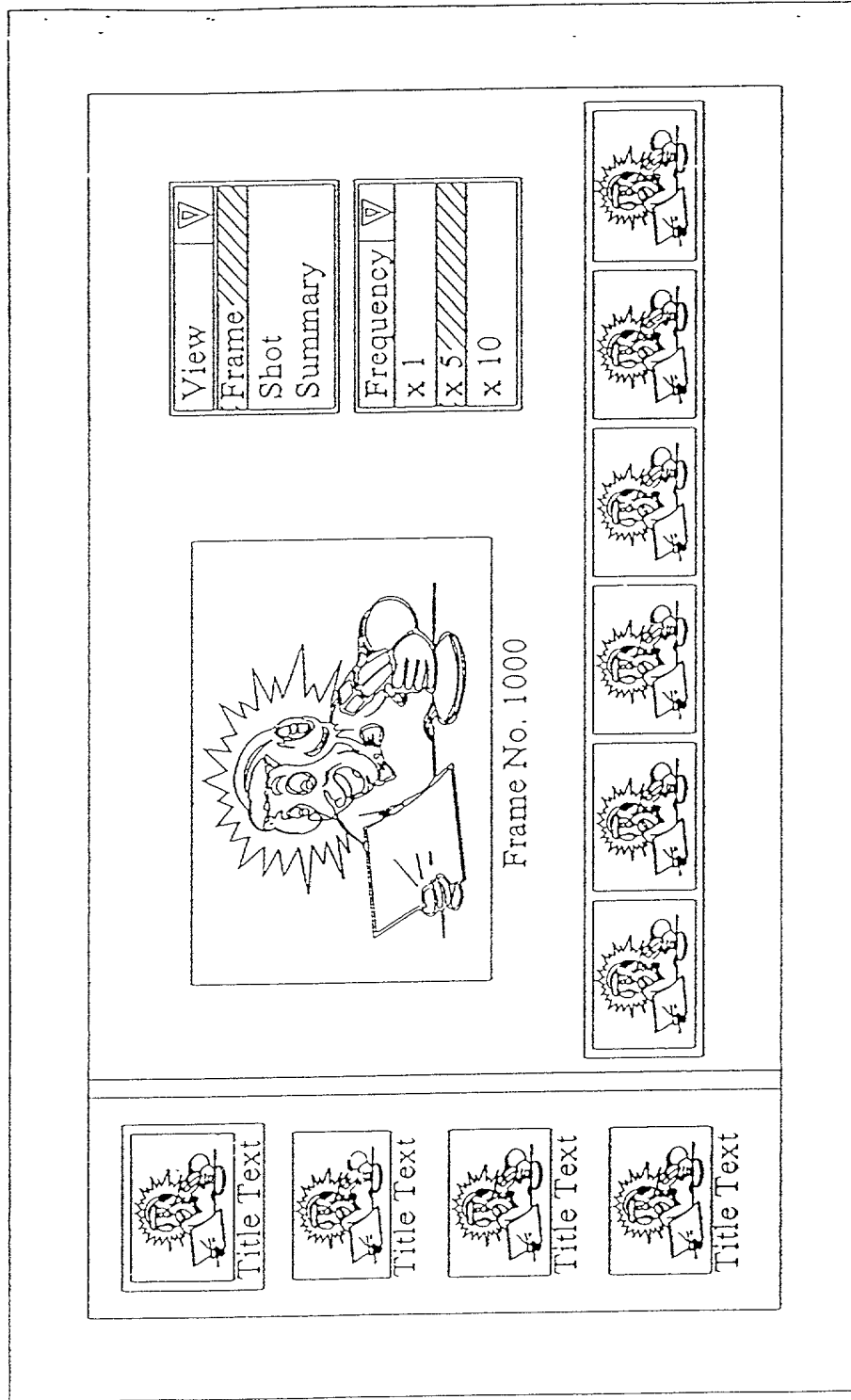


FIG. 7

Shot View

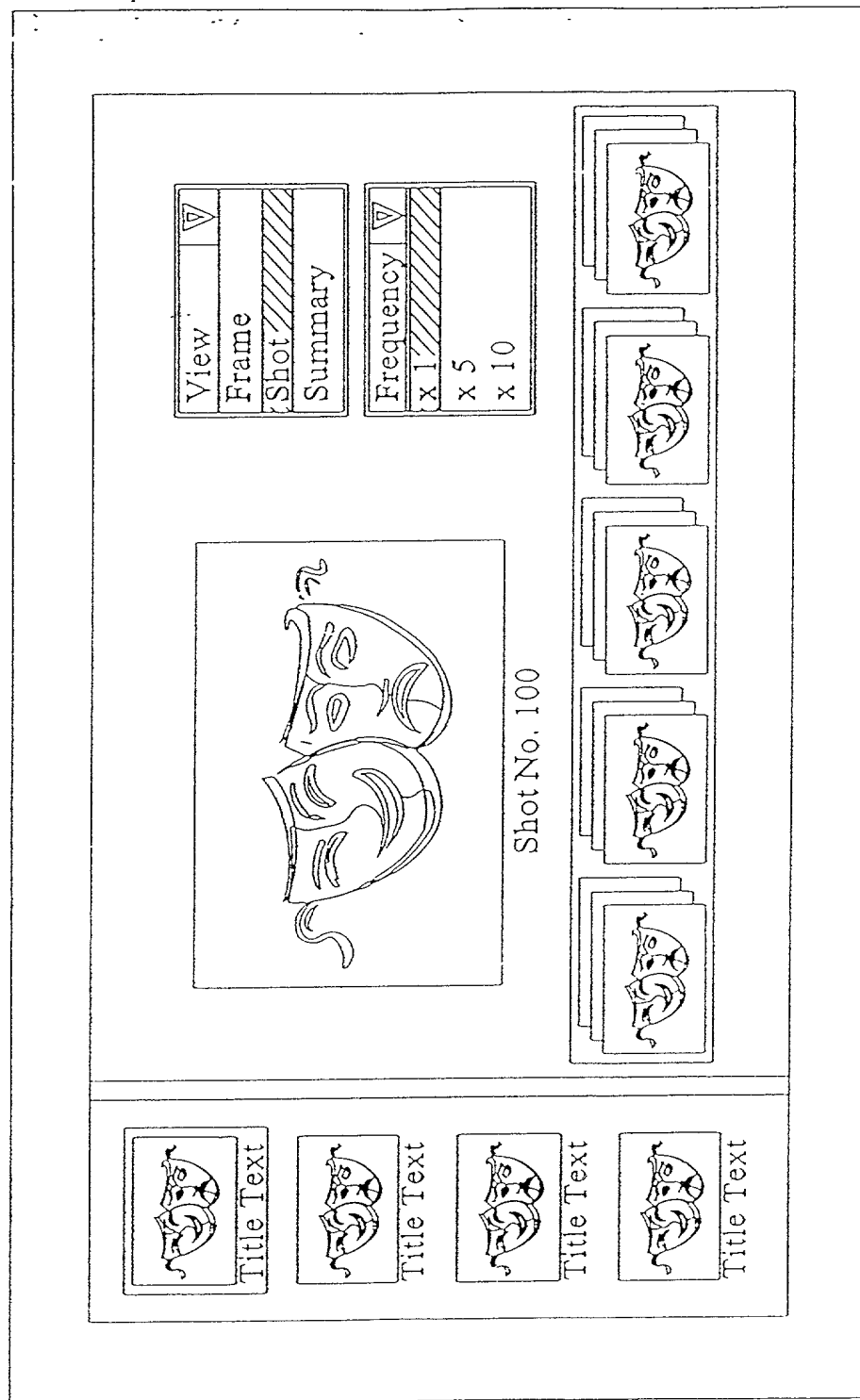


FIG. 8

Key Frame View

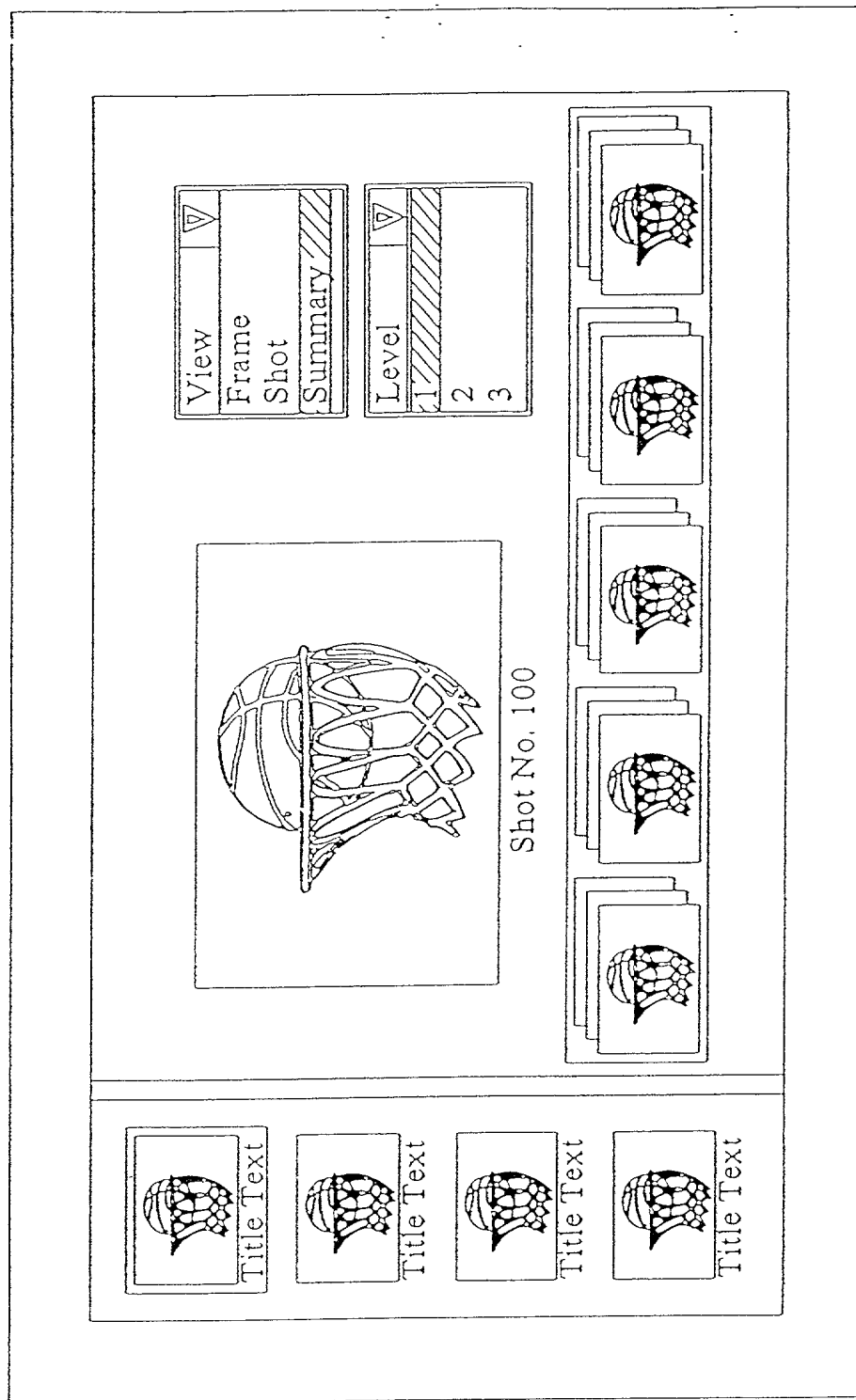


FIG. 9

Highlight View

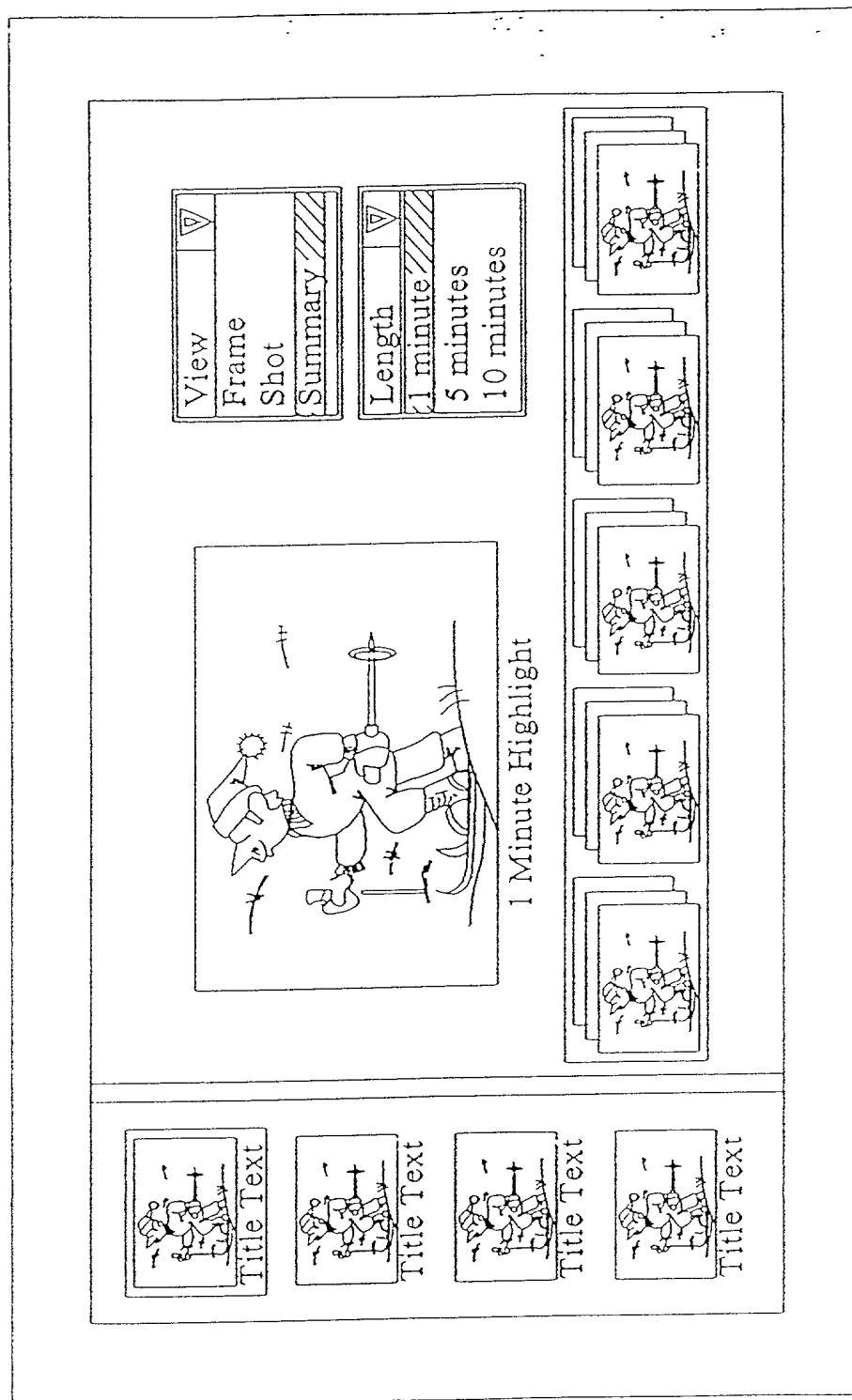


FIG. 10

Event View

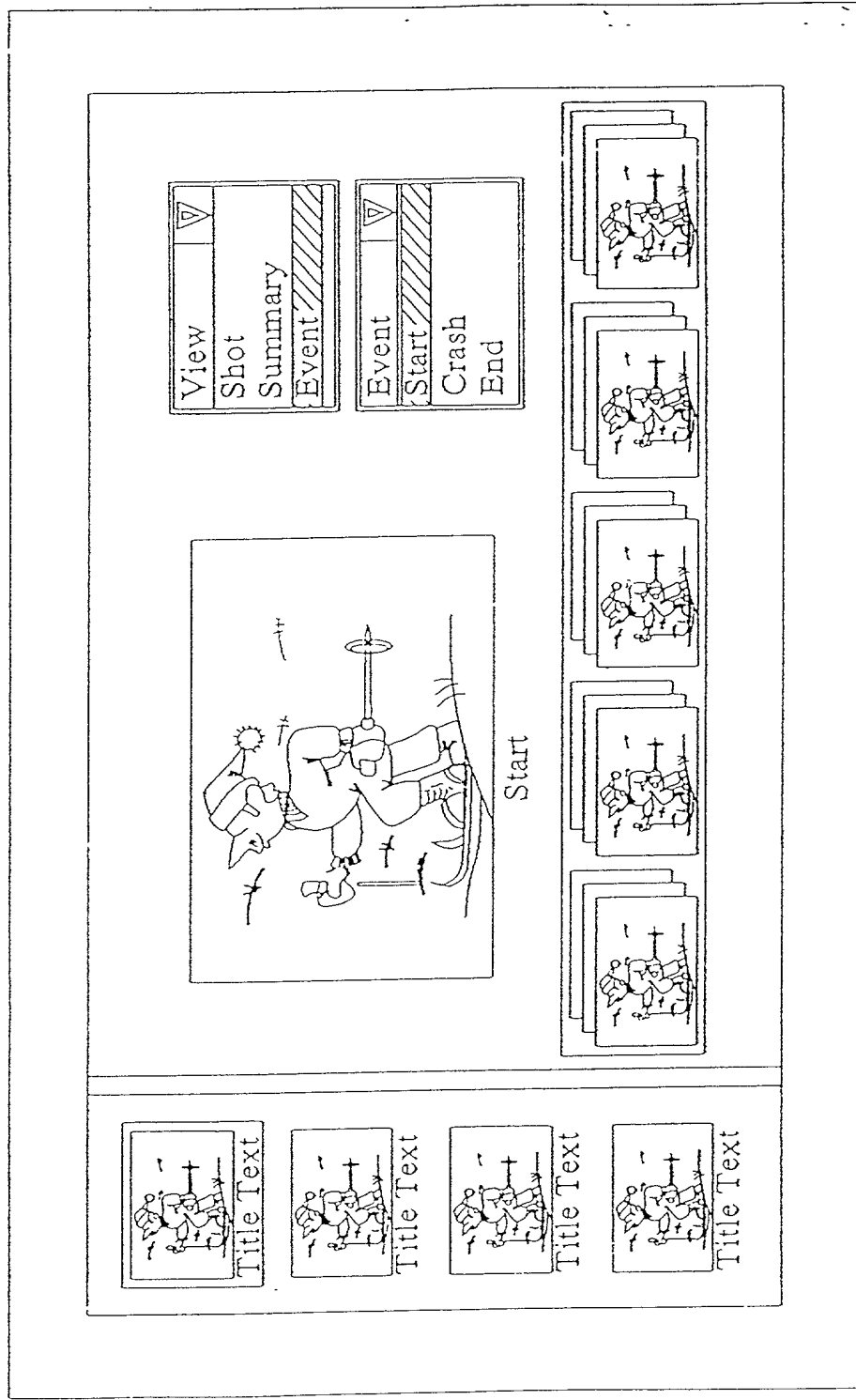


FIG. 11

Character/Object View

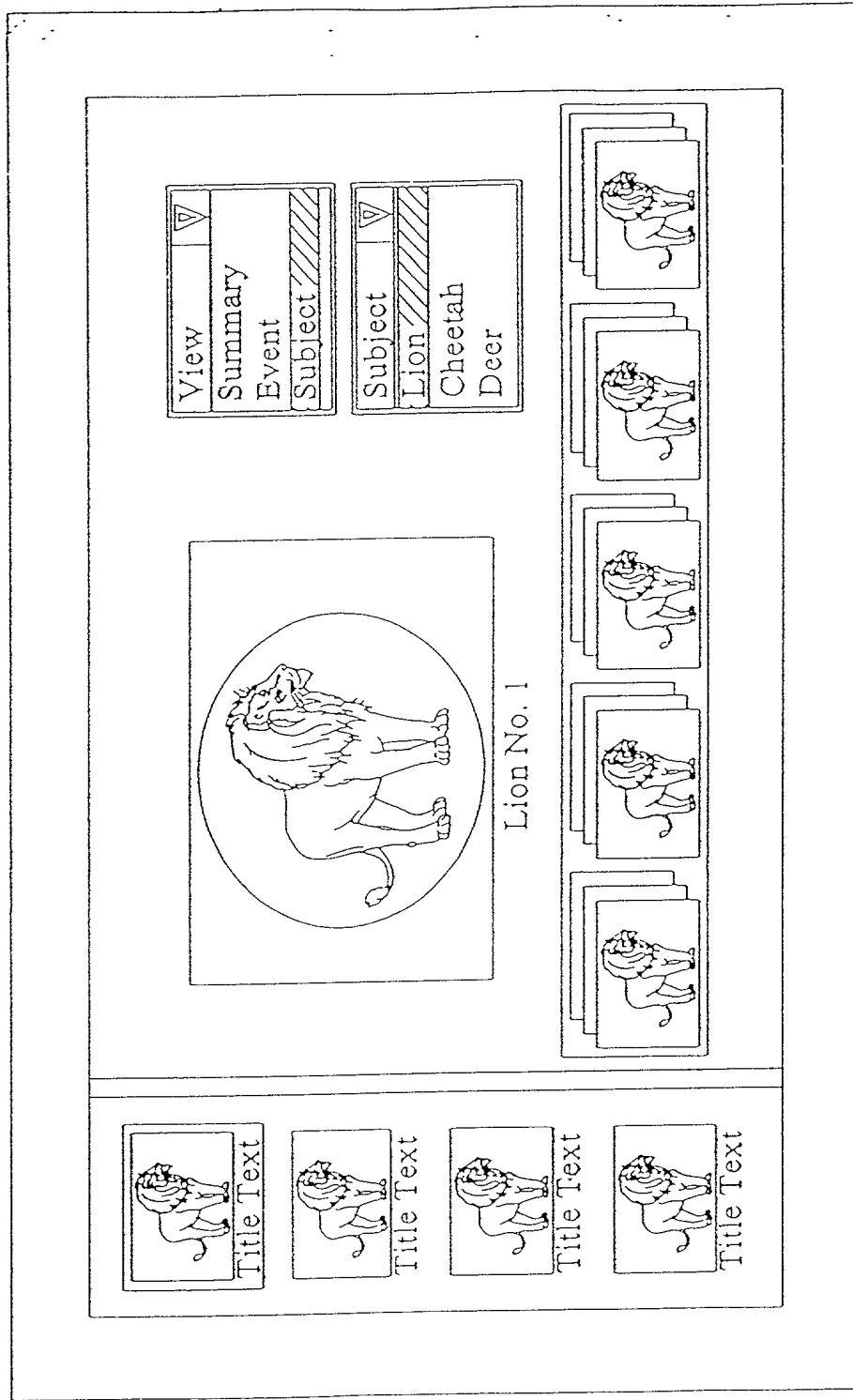


FIG. 12

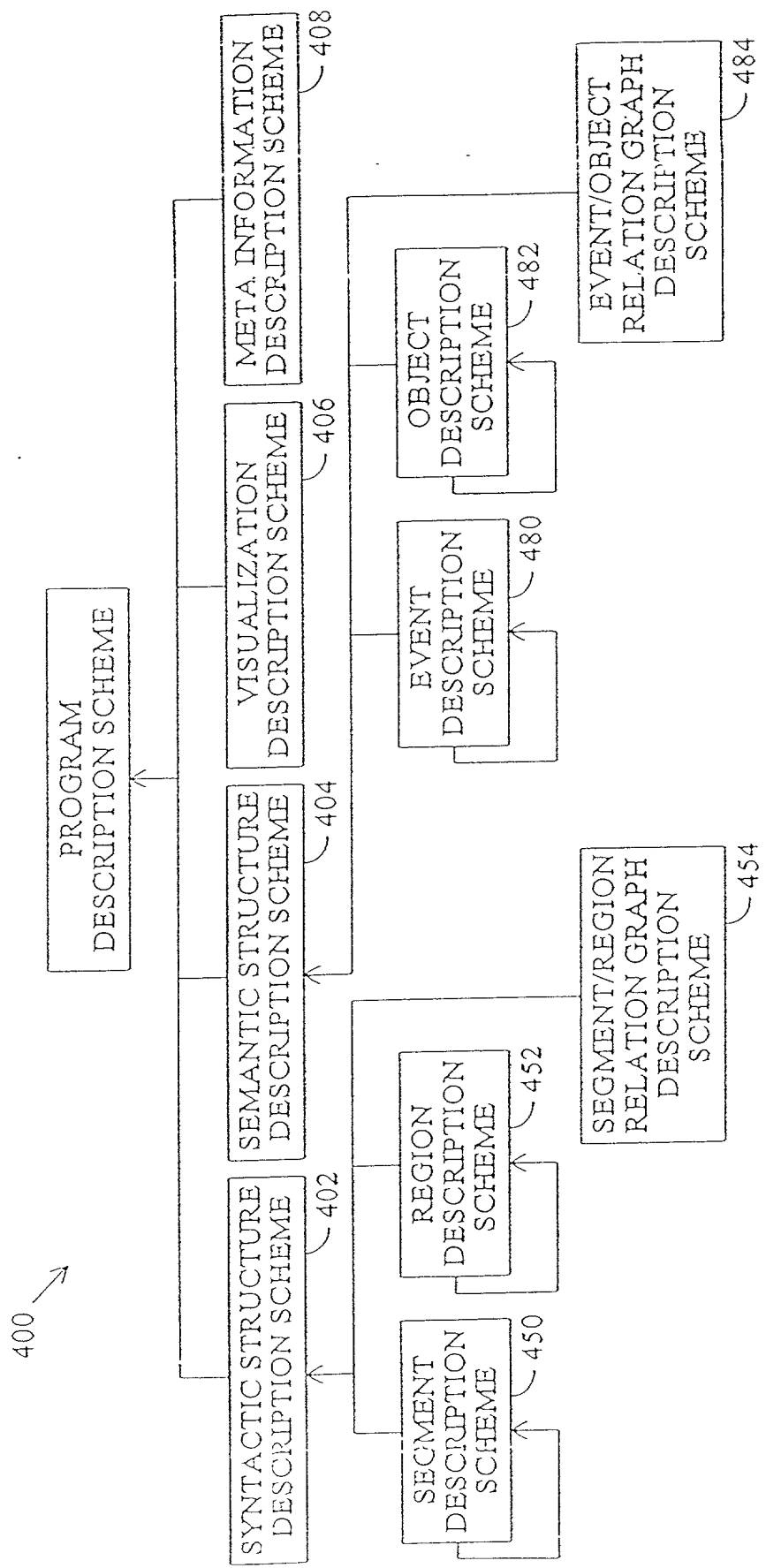


FIG. 13

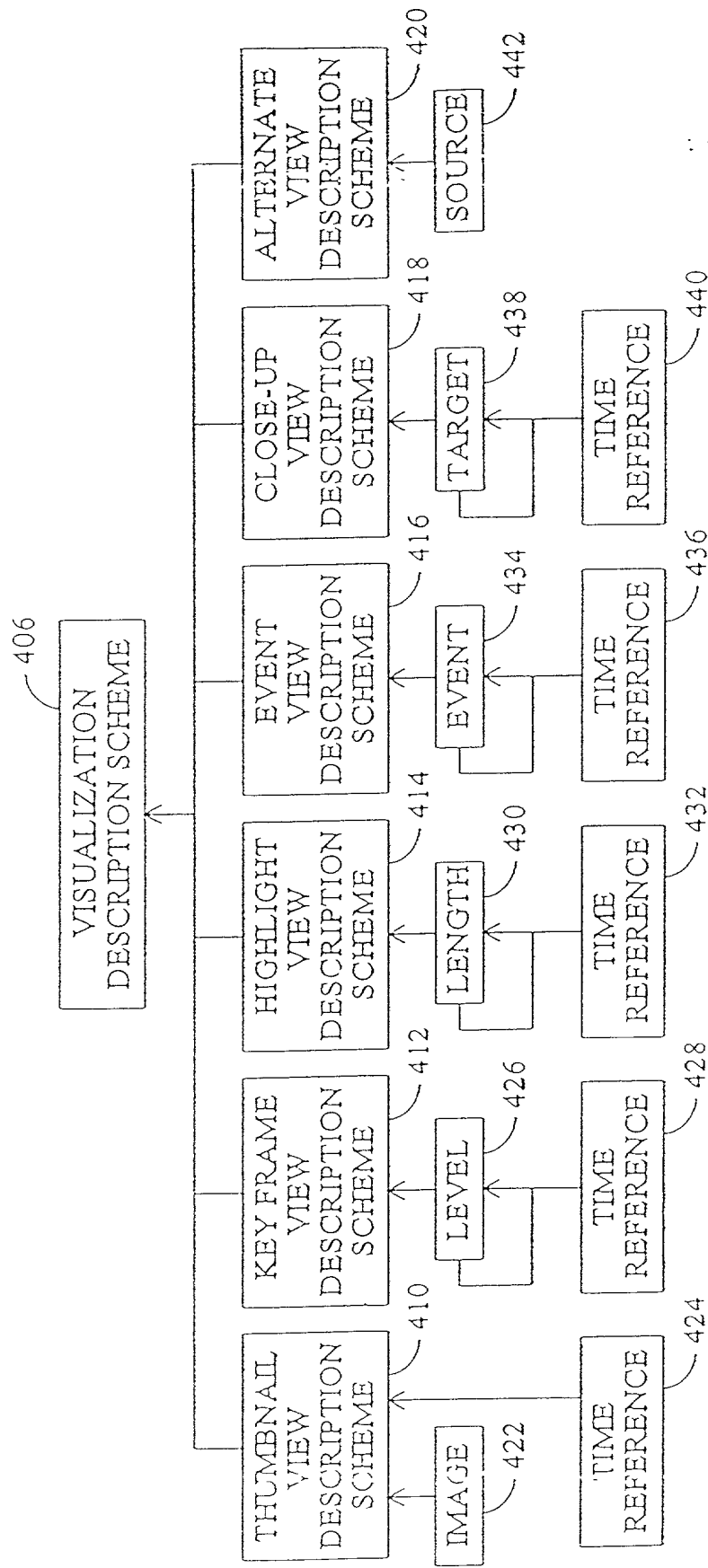


FIG. 14

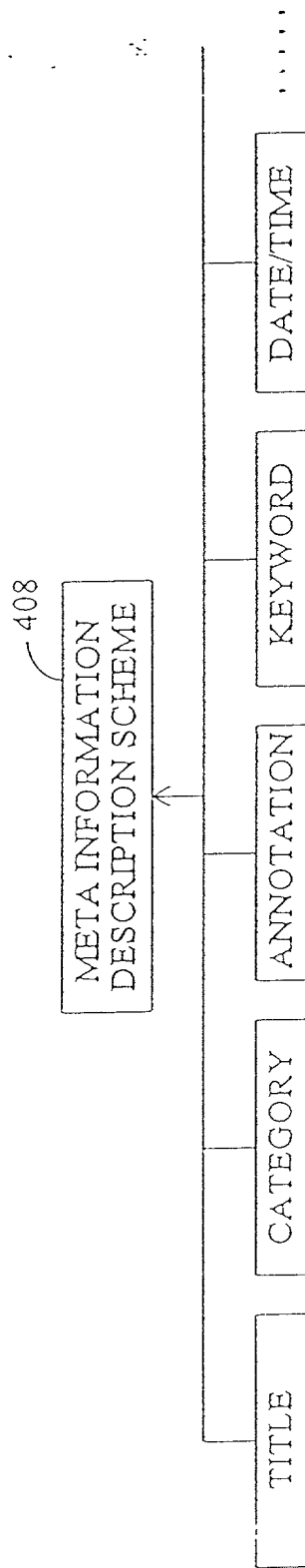


FIG. 15

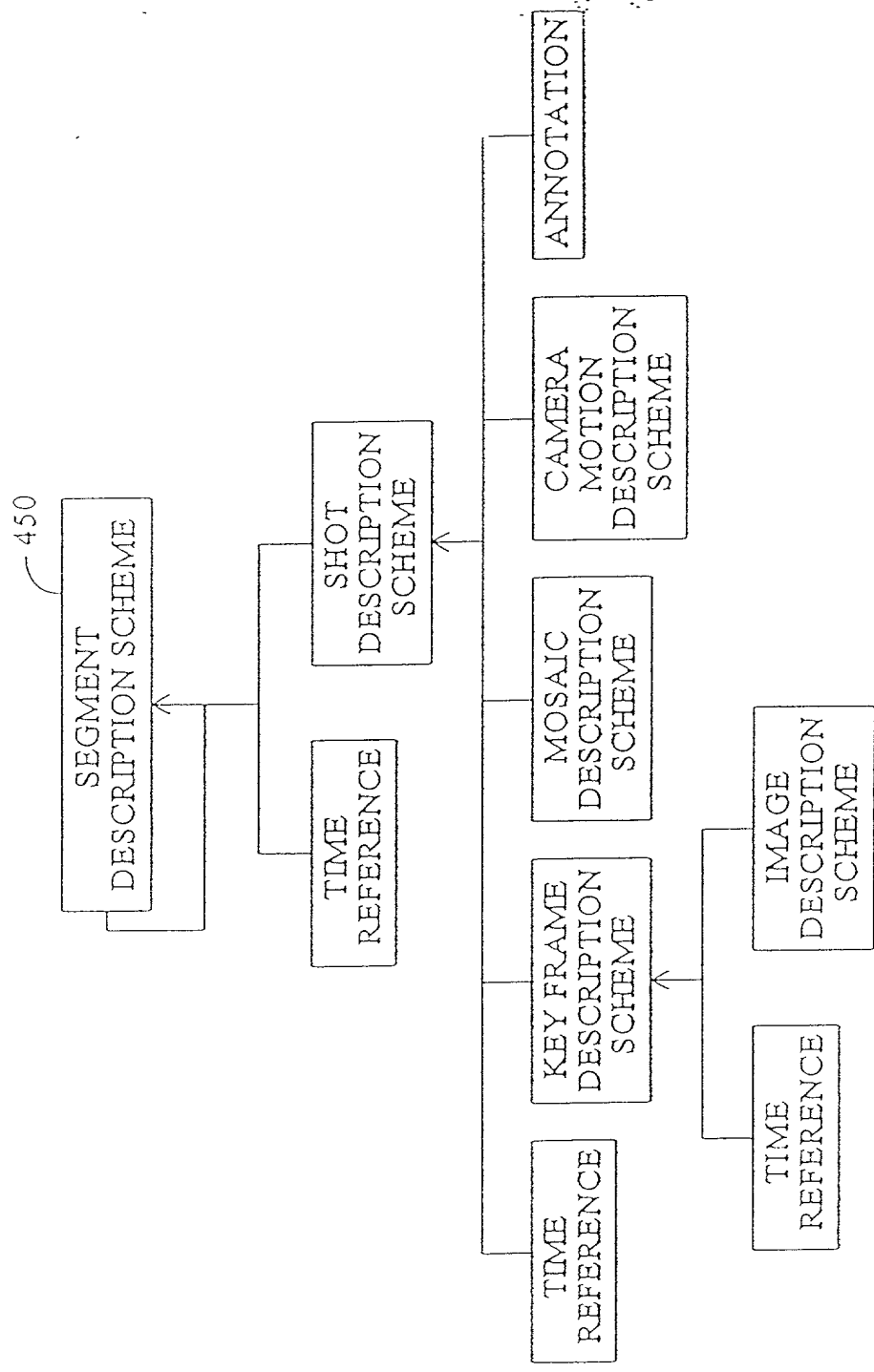


FIG. 16

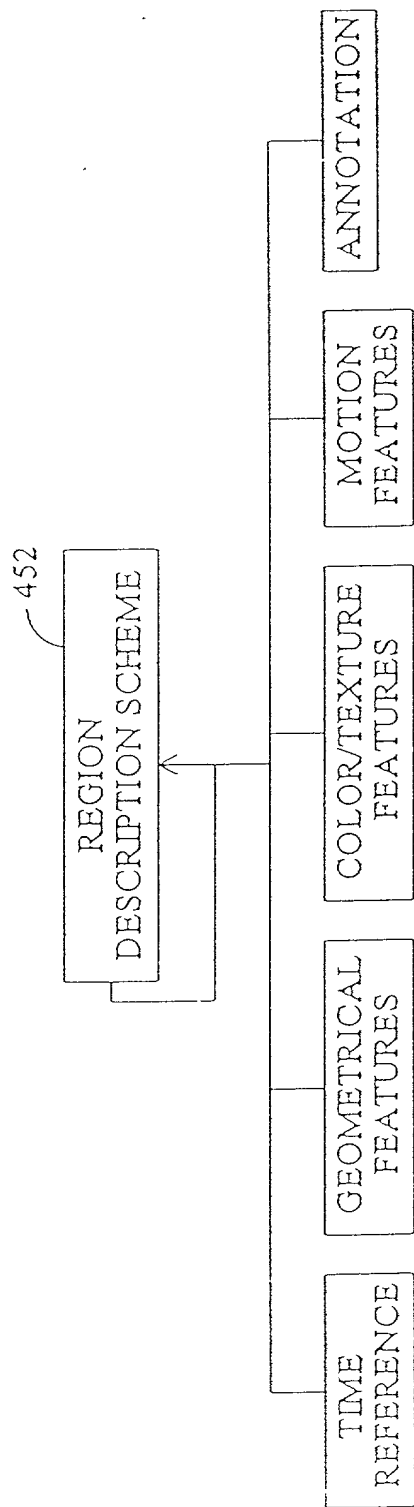


FIG. 17

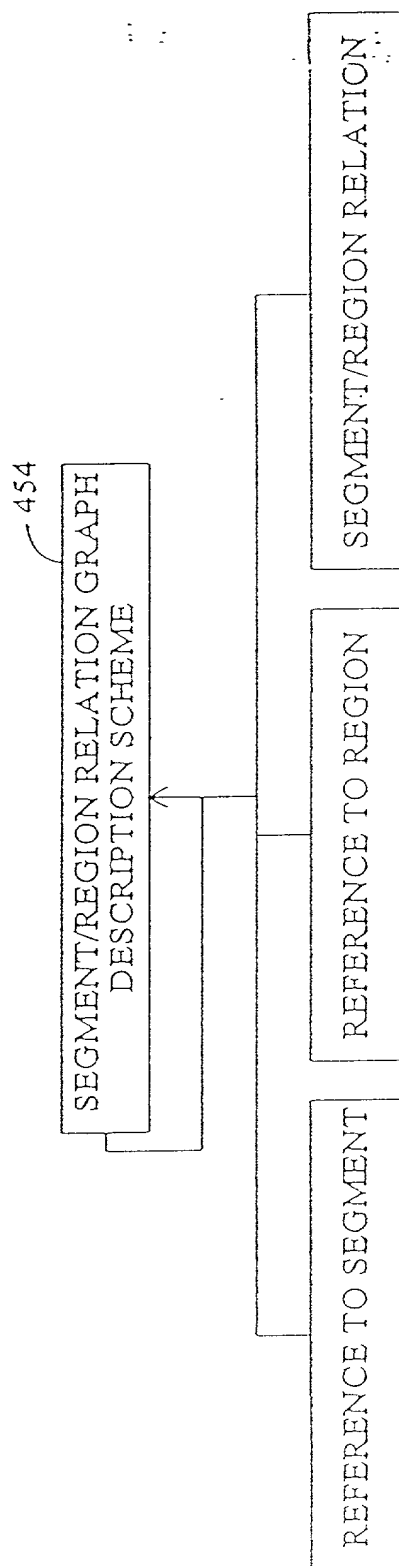


FIG. 18

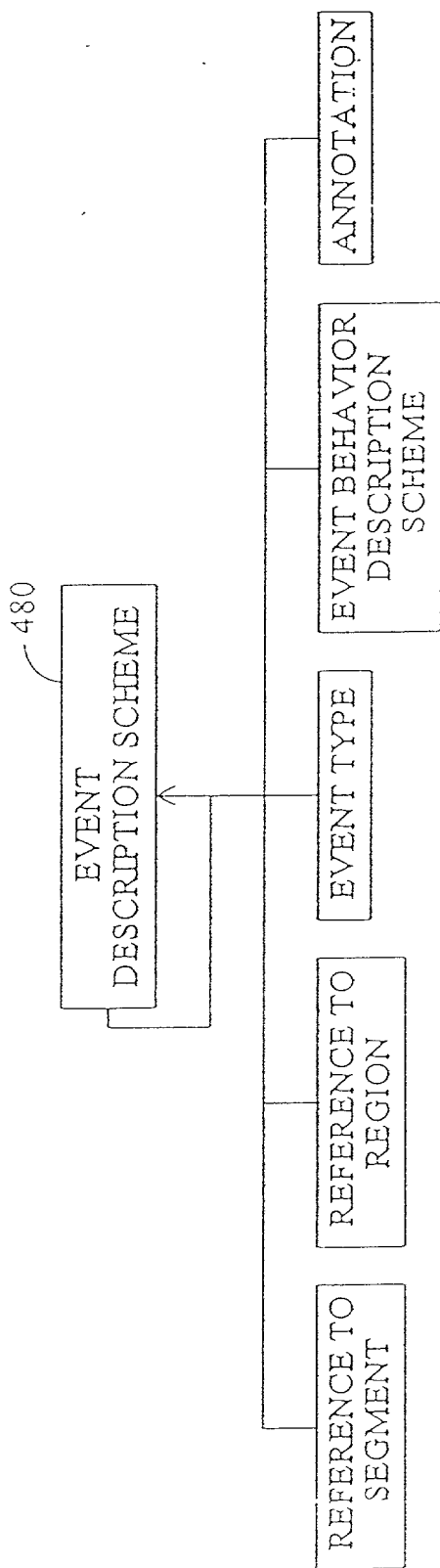


FIG. 19

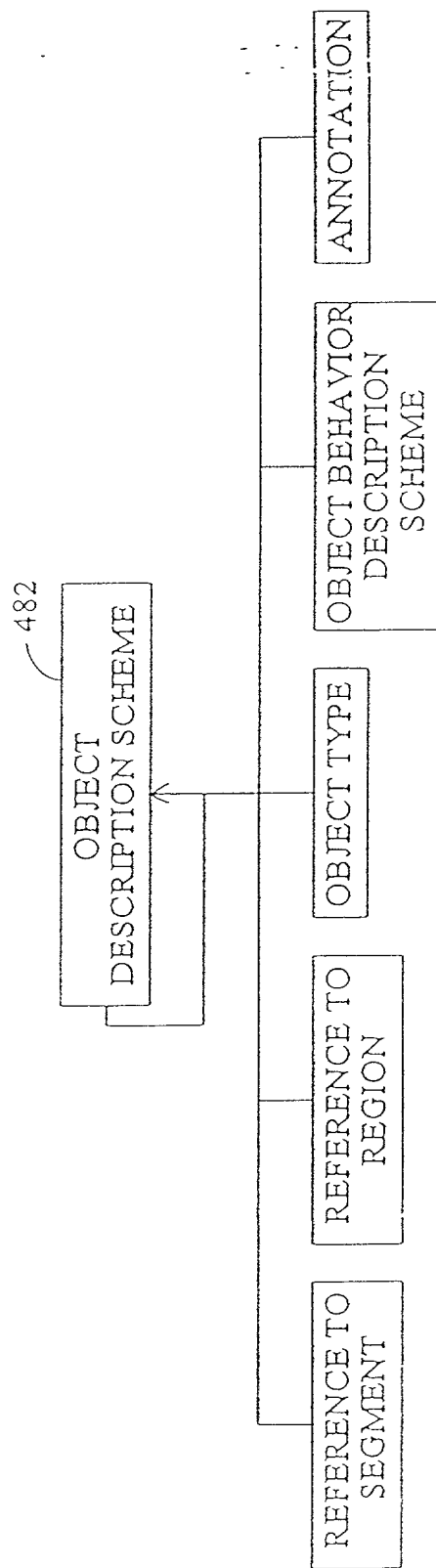


FIG. 20

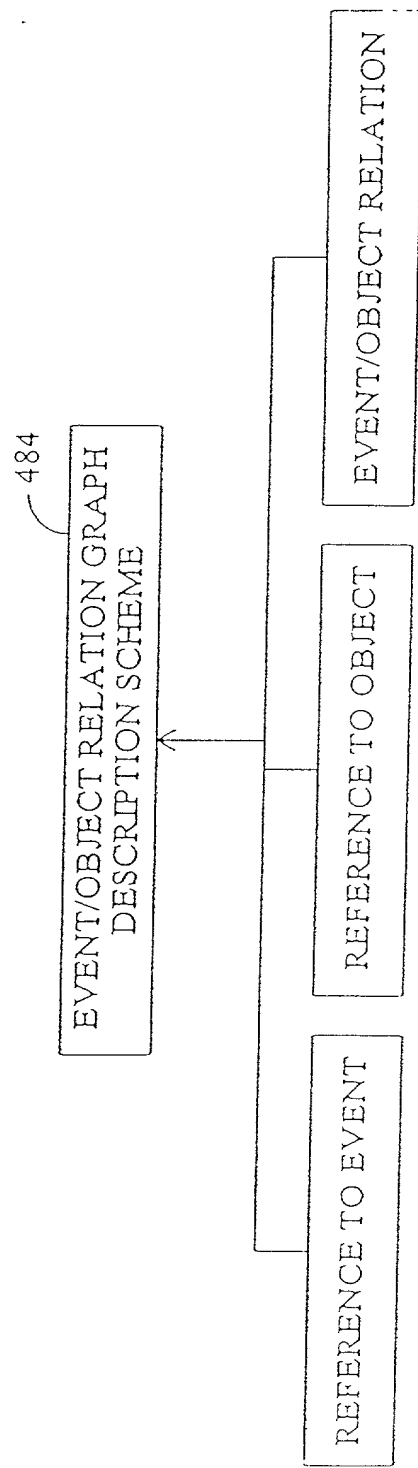


FIG. 21

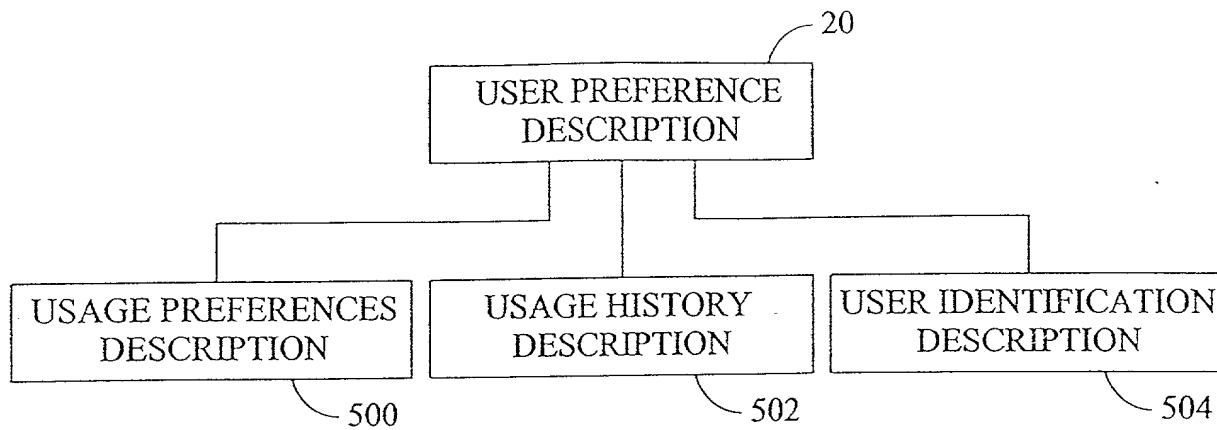


FIG. 22

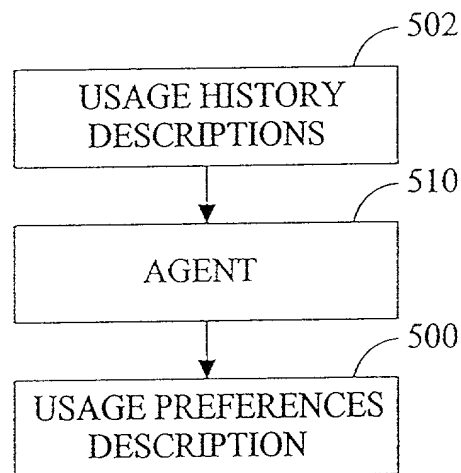


FIG. 23

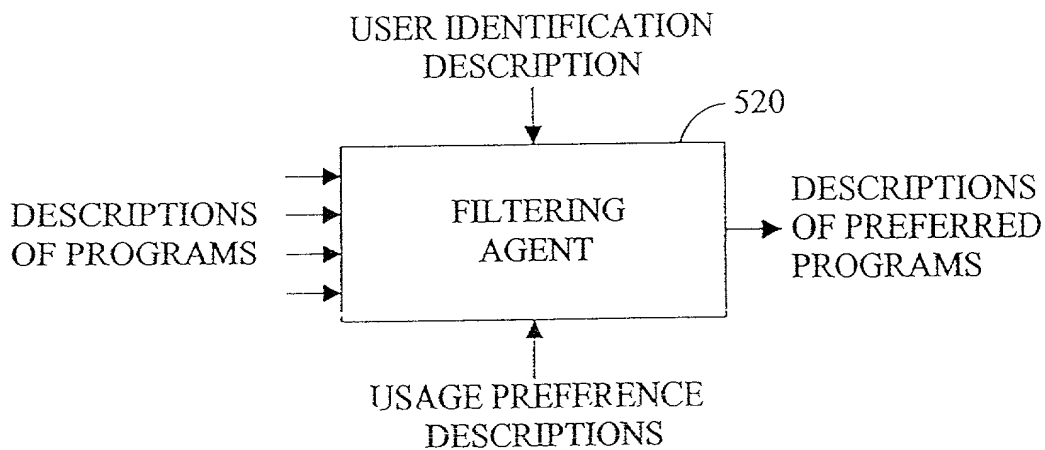


FIG. 24

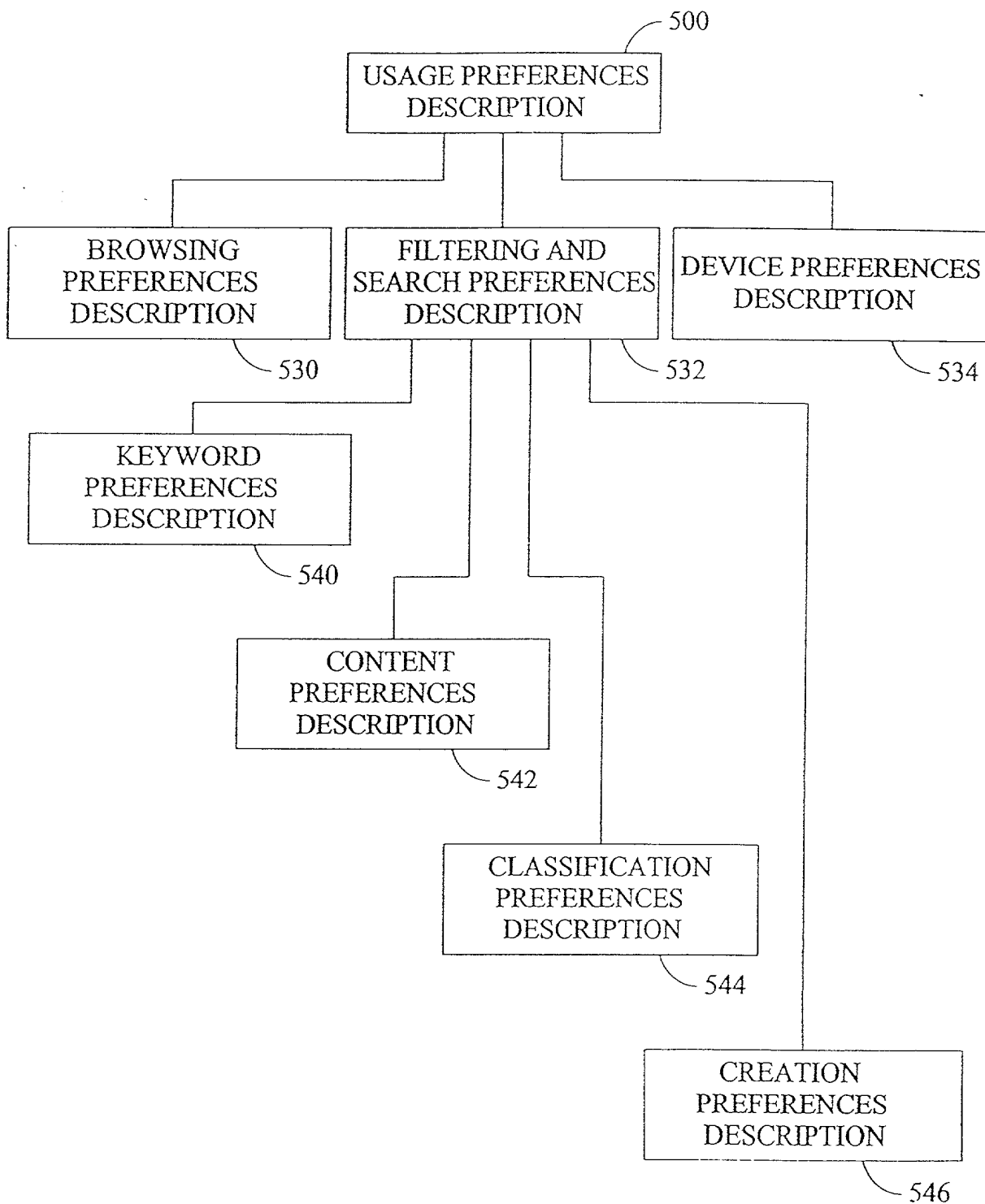


FIG. 25

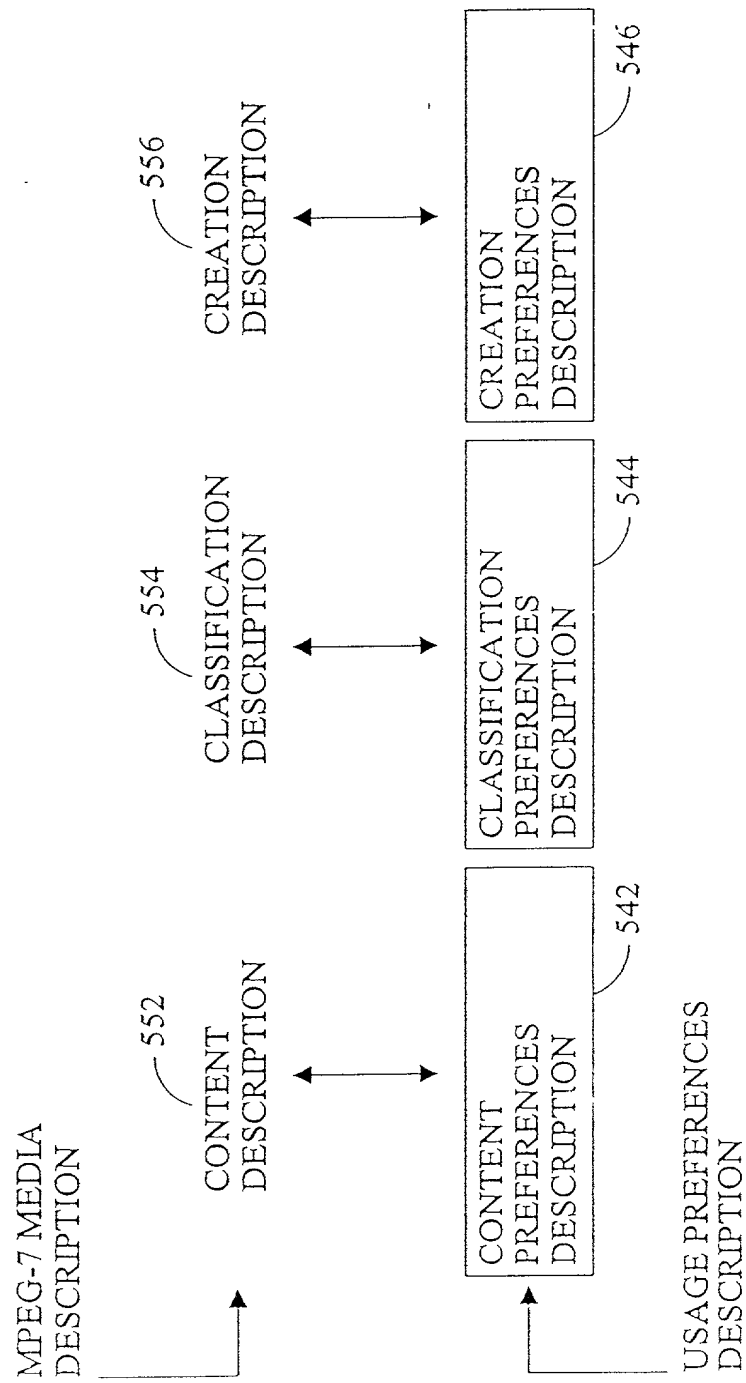


FIG. 26

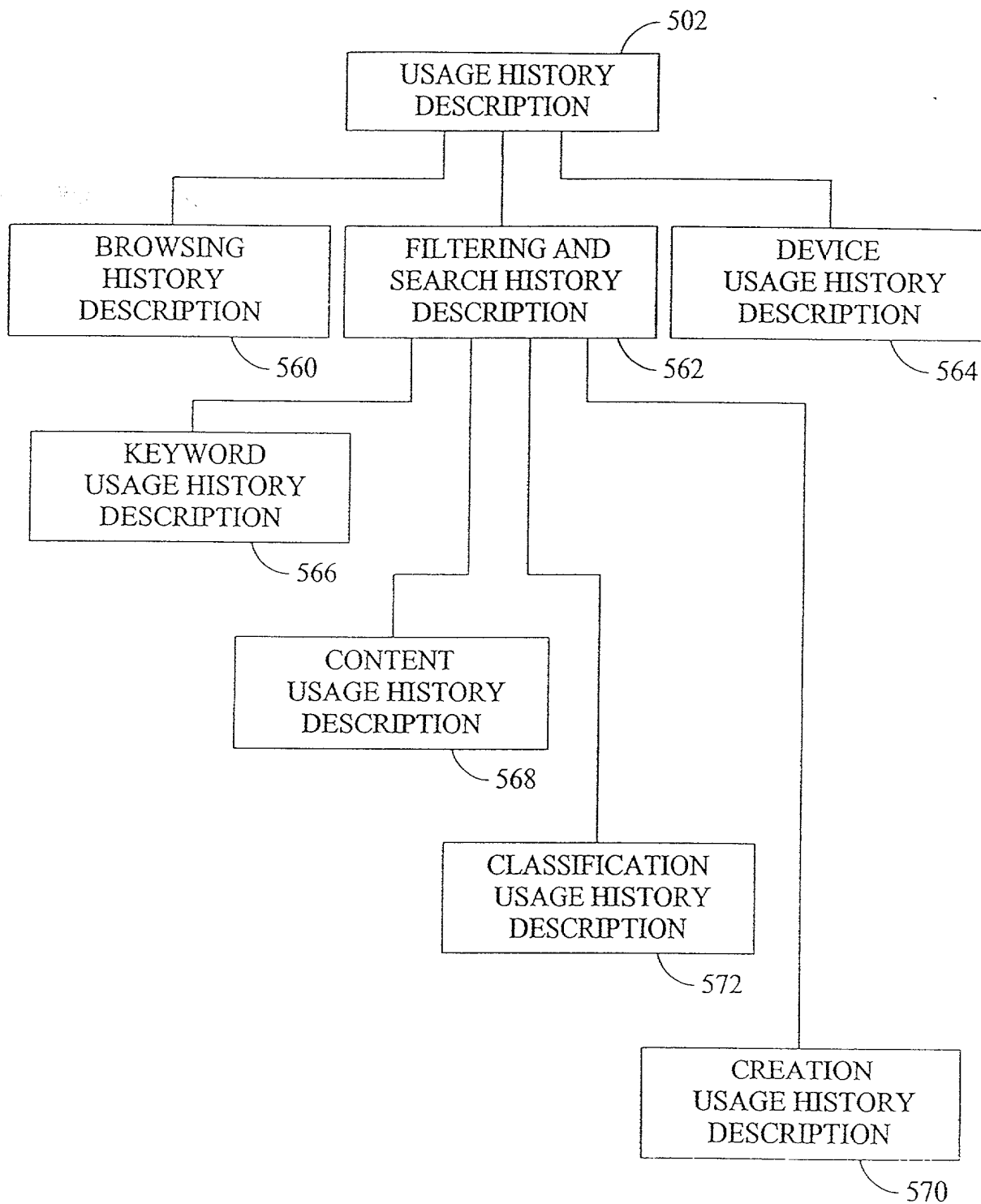


FIG. 27

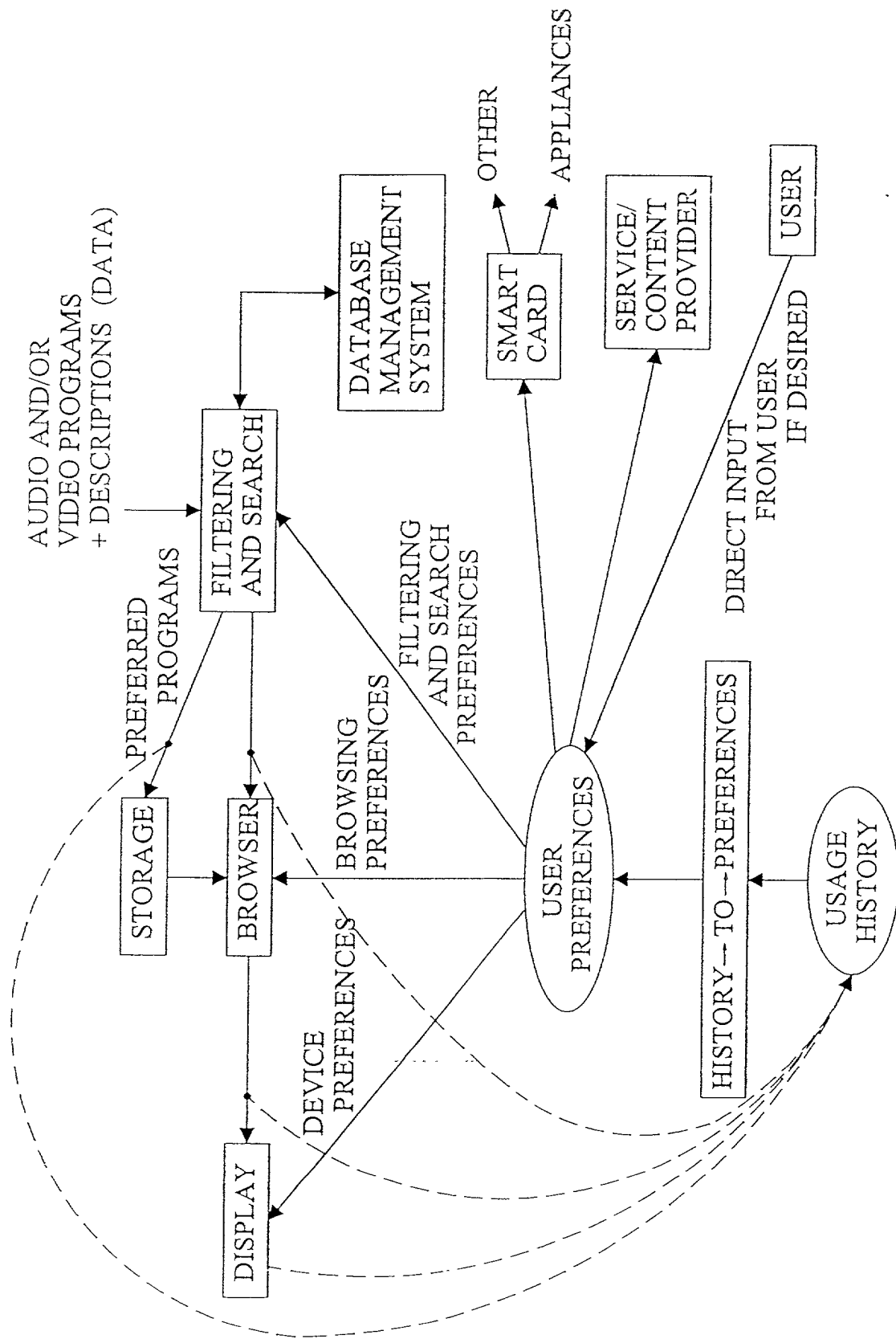


FIG. 28

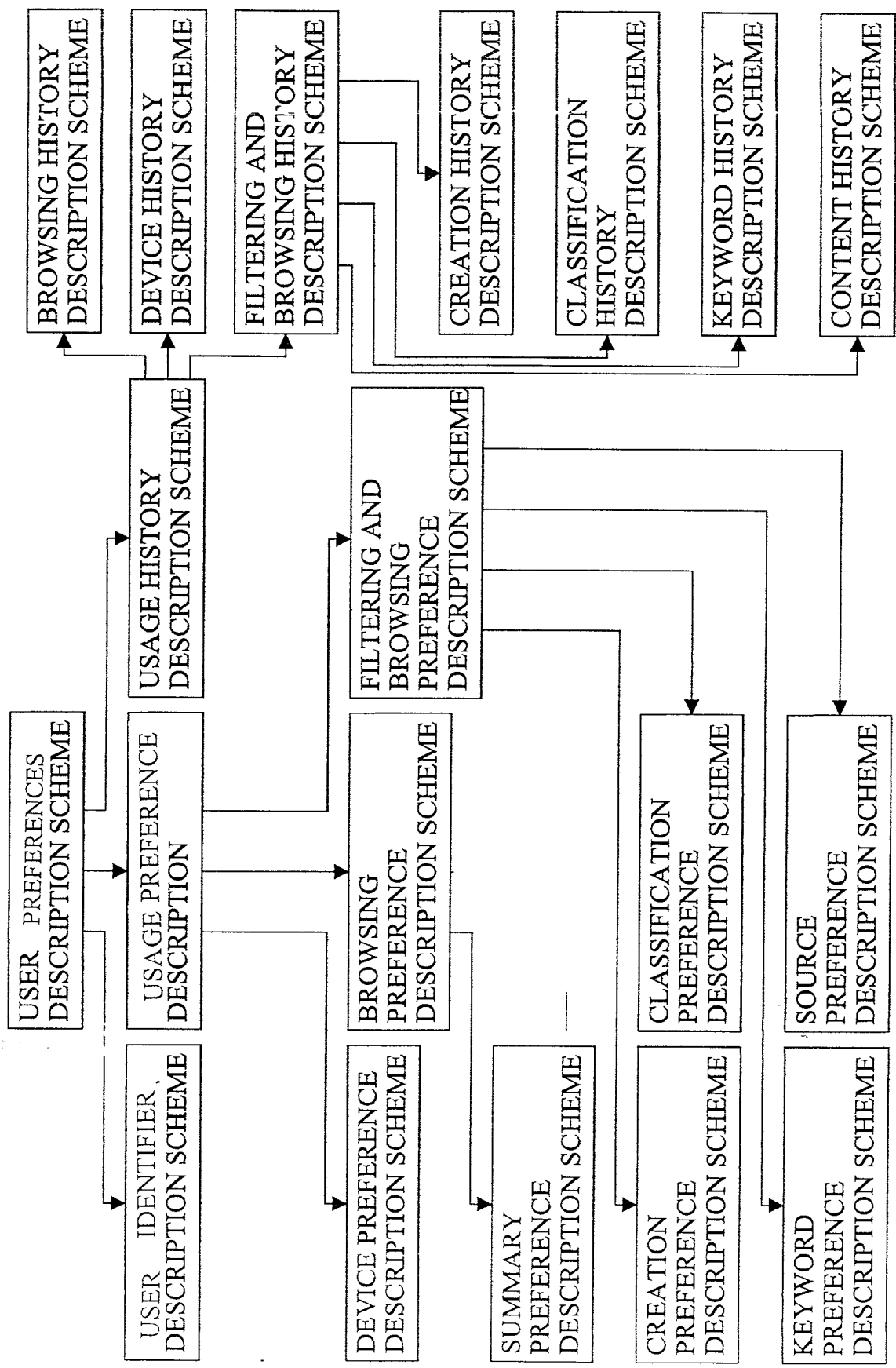


FIG. 29

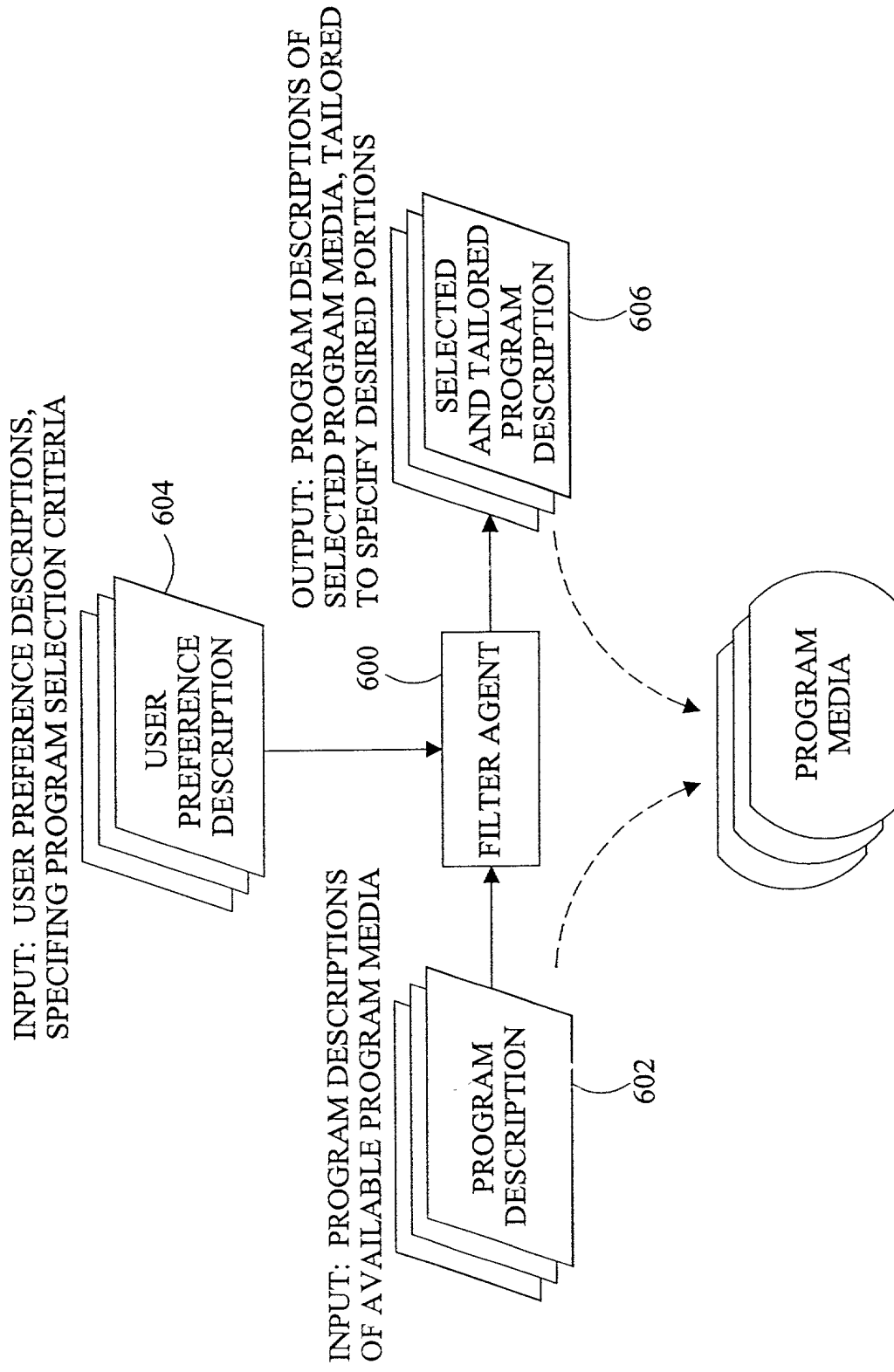
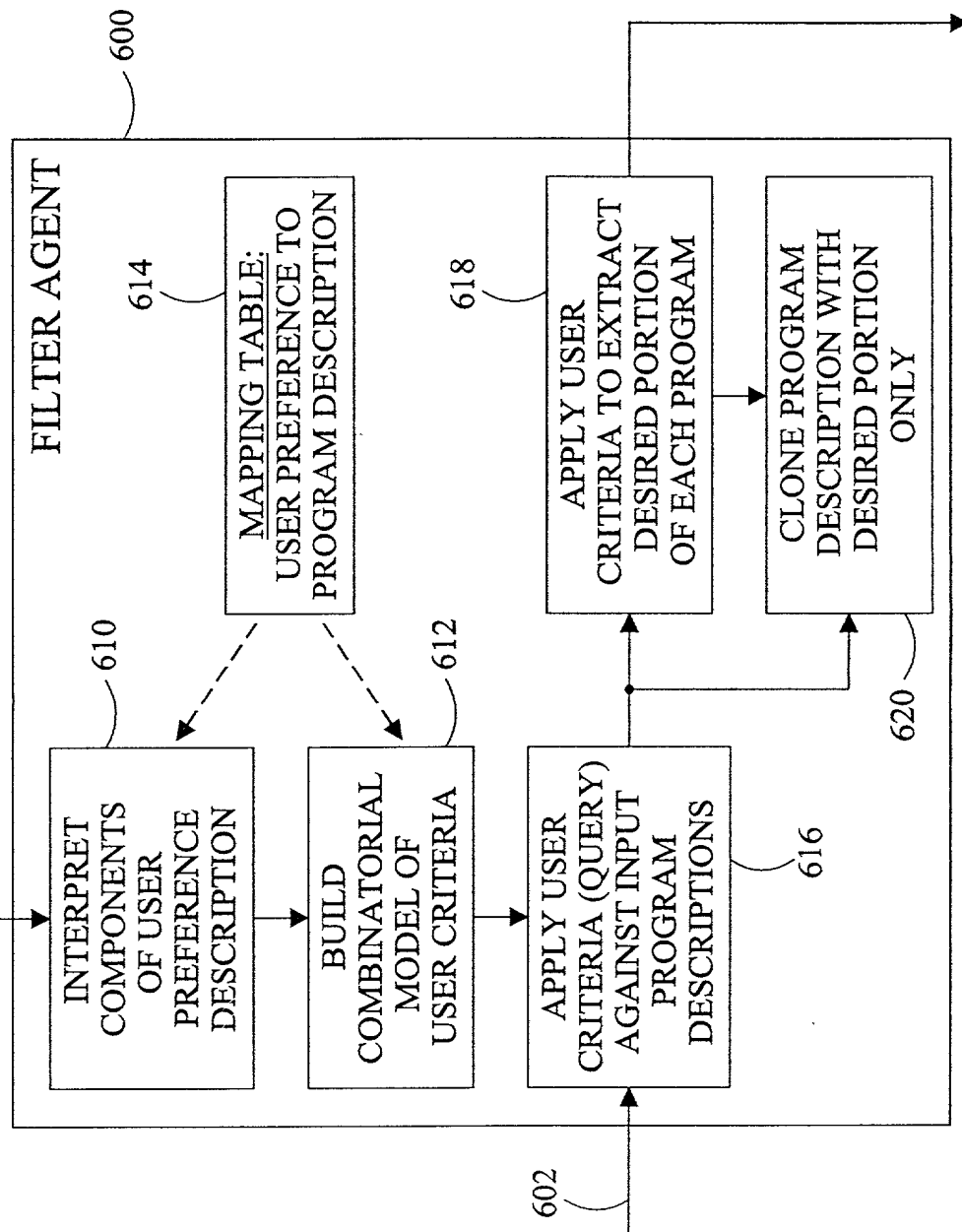


FIG. 30

FIG. 31

INPUT: USER PREFERENCE DESCRIPTIONS, SPECIFYING PROGRAM SELECTION CRITERIA



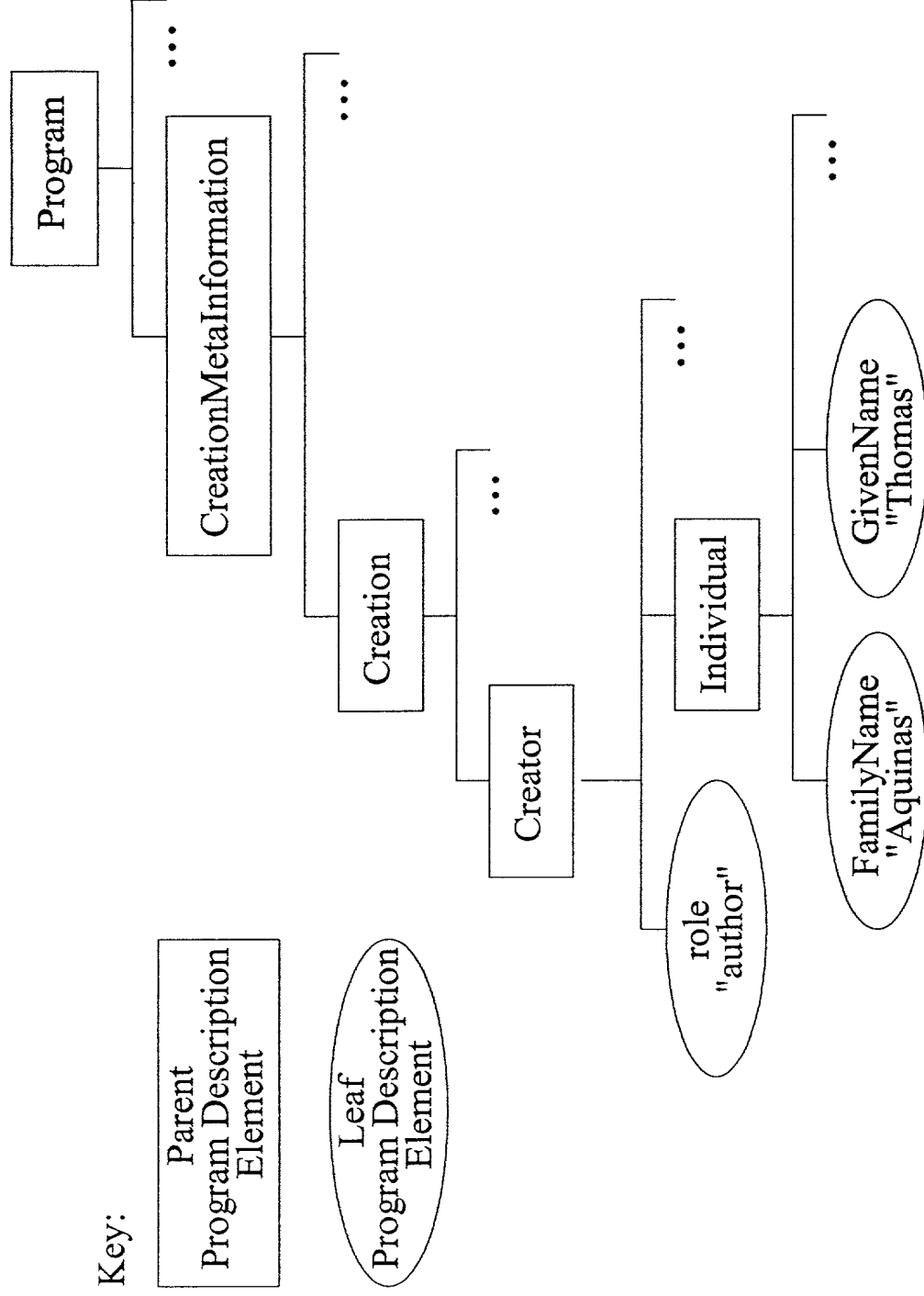


FIG. 32

Individual
Preference

| | |
|--------------------|---------------------|
| Preference Name | Preference Value |
|--------------------|---------------------|

FIG. 33

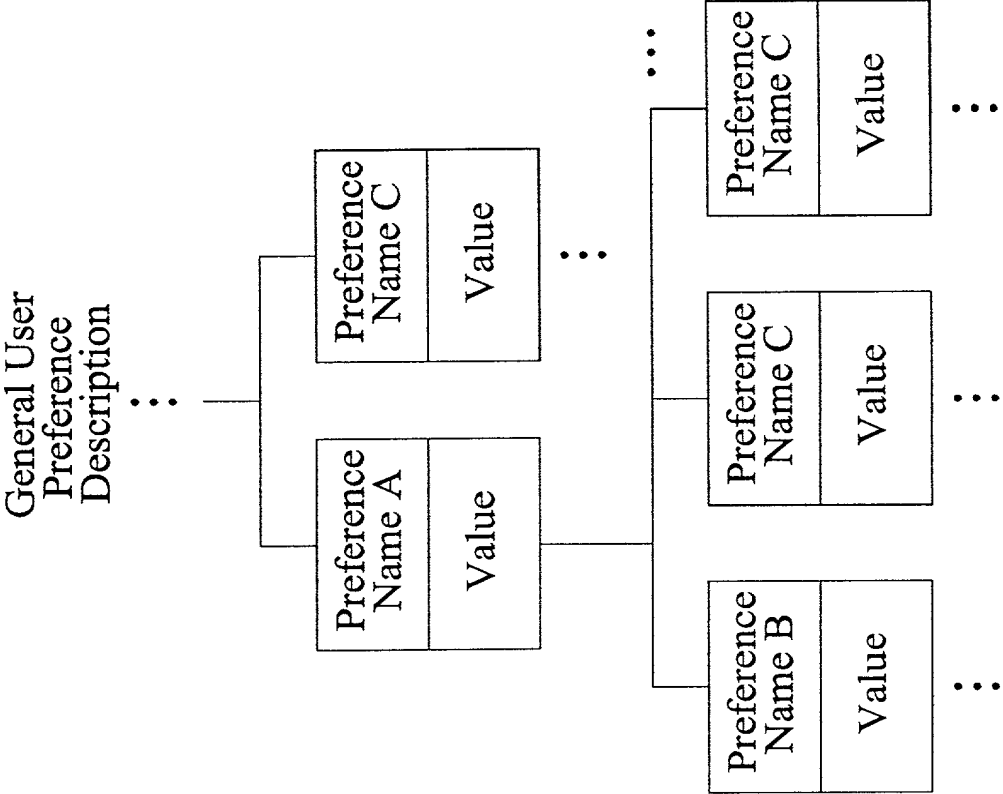
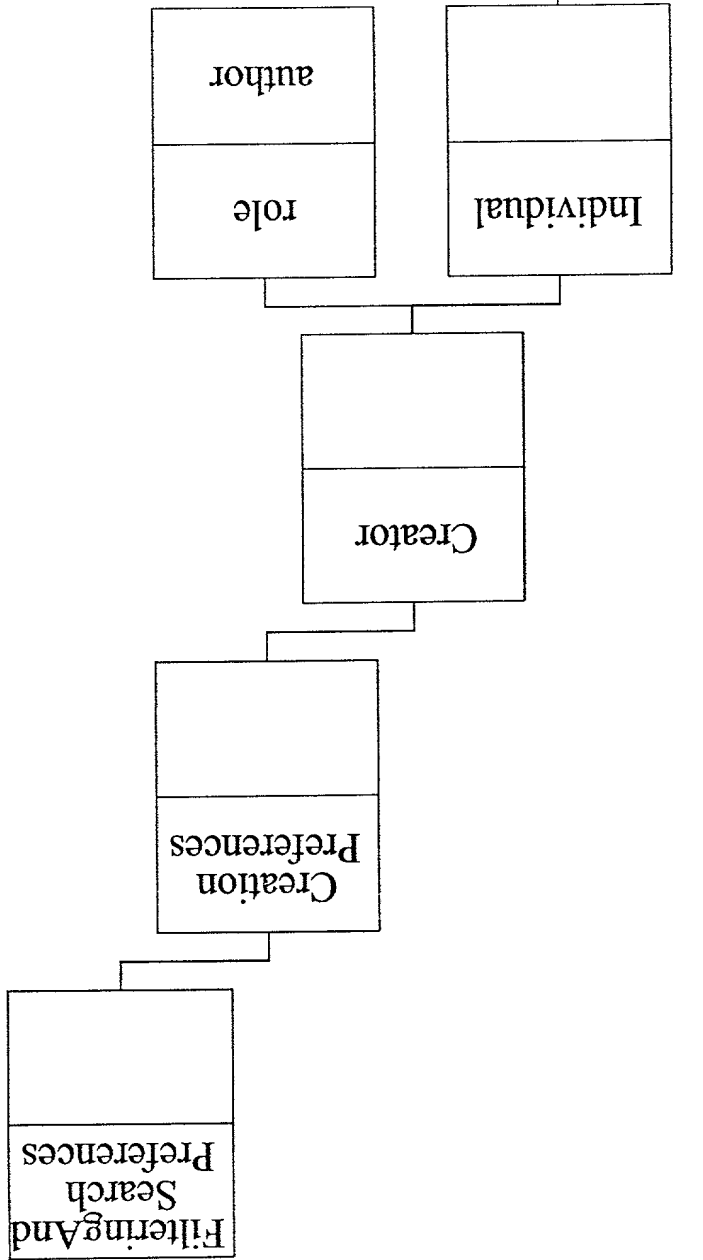


FIG. 34

| | |
|------------|-------------|
| Thomas | Aquinas |
| Given Name | Family Name |



| <u>Name</u> | <u>Location</u> | <u>TestOp</u> | | <u>InterOp</u> | | <u>IntraOp</u> |
|---|---|---------------|-----------------------|----------------|-----|----------------|
| | | | | | | |
| FilteringAndSearch Preferences/ CreationPreferences | /Program /*CreationMetaInformation /*Creation | | match-case-insens | AND | AND | AND |
| Creator/role | /*Creator/role | | NULL | CAND | OR | OR |
| Creator/Individual/ FamilyName | /*Creator/Individual /*FamilyName | | substring-case-insens | CAND | OR | OR |
| Creator/Individual/ GivenName | /*Creator/Individual /*GivenName | | substring-case-insens | CAND | OR | OR |

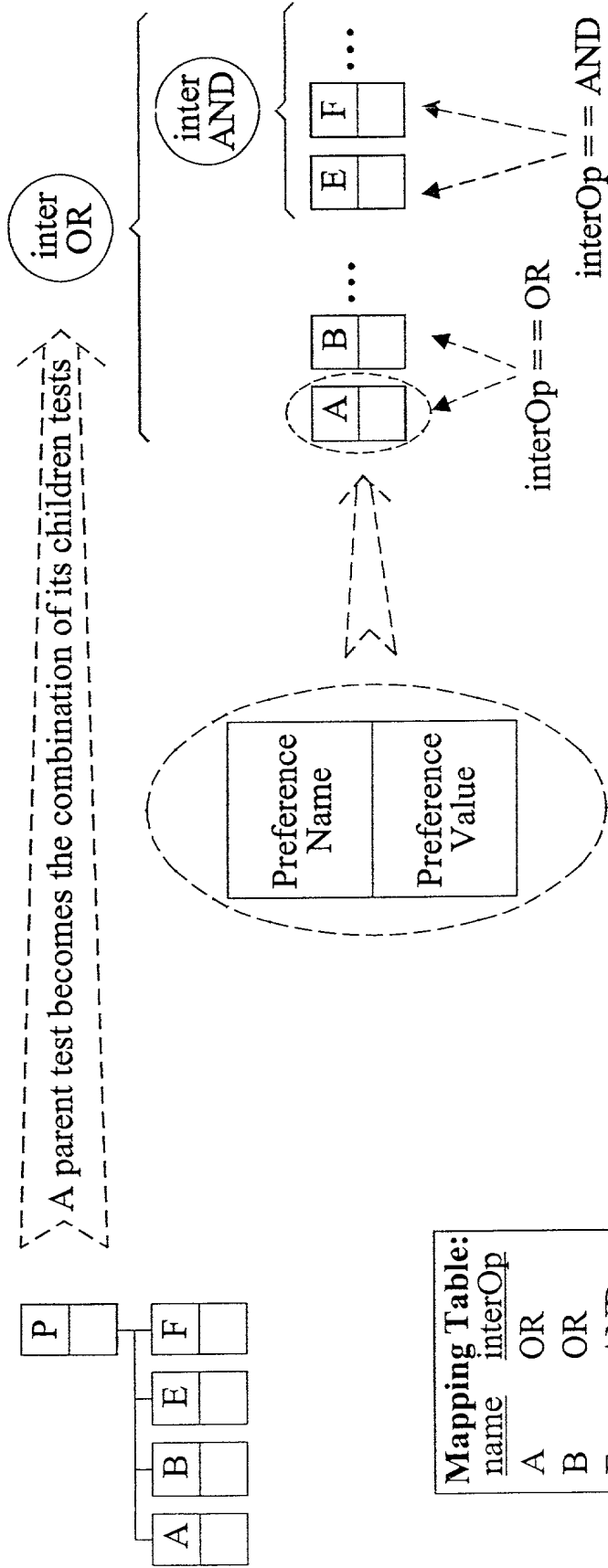
FIG. 36

| Test Operator | Description |
|--|--|
| substring-case-insensitive | Test that the preference value string [is a substring of] / [matches] the Program Description element value, [with] / [without] being case sensitive. |
| substring-case-sensitive | |
| string-match-case-insensitive | |
| string-match-case-sensitive | |
| value-less-than | <p>Test that the Program Description element value converted to a number is [$<$, $<=$, $>$, $>=$, $=$, $>$, $>=$, $<=$, \sim] the preference value converted to number[s].</p> <p>In the case of range tests ($>$, $<$, $>=$, $<=$), the preference value is assumed to be a pair of comma-delimited numbers.</p> <p>The approximate operator may have a second number describing the rolloff from the target number.</p> |
| value-less-than-or-equal | |
| value-greater-than | |
| value-greater-than-or-equal | |
| value-equal | |
| value-greater-than-less-than | |
| value-greater-than-equal-less-than-equal | |
| value-approximately | |
| count-less-than | |
| count-greater-than | |
| count-equal | <p>Test that the quantity of Program Description elements is [$<$, $<$, $>$, $>=$, $>$, $<$, \sim] the preference value converted to number[s].</p> <p>In the case of range tests ($>$, $<$), the preference value is assumed to be a pair of comma-delimited numbers.</p> <p>The approximate operator may have a second number describing the rolloff from the target number.</p> |
| count-greater-than-less-than | |
| count-approximately | |

FIG. 37

| Combinatorial Operator | Description |
|------------------------|--|
| AND | The result of this Individual Preference test is boolean ANDed with others. If all the results in this combination are non-zero, the combined result is one, otherwise zero. |
| OR | The result of this Individual Preference test is boolean ORed with others. If any of the results in this combination are non-zero, the combined result is one, otherwise zero. |
| CAND | The Individual Preferences in this combination are evaluated form a Constrained common node. If all the results in this combination are non-zero, the combined result is one, otherwise zero. |
| MAX | The result of this Individual Preference test is combined arithmetically in a Maximum function with others. The combined result is the largest of all the results in this combination. |
| MIN | The result of this Individual Preference test is combined arithmetically in a Minimum function with others. The combined result is the smallest of all the results in this combination. |
| PROD | The result of this Individual Preference test is combined arithmetically in a Product function with others. The combined result is the product of all the results in this combination. |
| SAND | The result of this Individual Preference test is fuzzy ANDed with others. The combined result is the product of all the fuzzy-transformed (mapped to an S-curve profile) results. |
| SUM | The result of this Individual Preference test is combined arithmetically in a Sum function with others. The combined result is the sum of all the results in this combination. The result may be further bounded to a maximum result value. |
| FREQ | The result of this Individual Preference test is boolean counted with others, and the sum is normalized. The combined result is the count of all non-zero results, divided by a fixed maximum frequency number. The result may be further bounded to a maximum result value. |
| RATIO | The result of this Individual Preference test is boolean counted with others, and the sum is normalized by the number of Individual Preference tests in this combination. The combined result is the count of all non-zero results, divided by the count of all results. |

FIG. 38



A single leaf Test is composed of:

- mapped location
- mapped operation
- query value

For example:

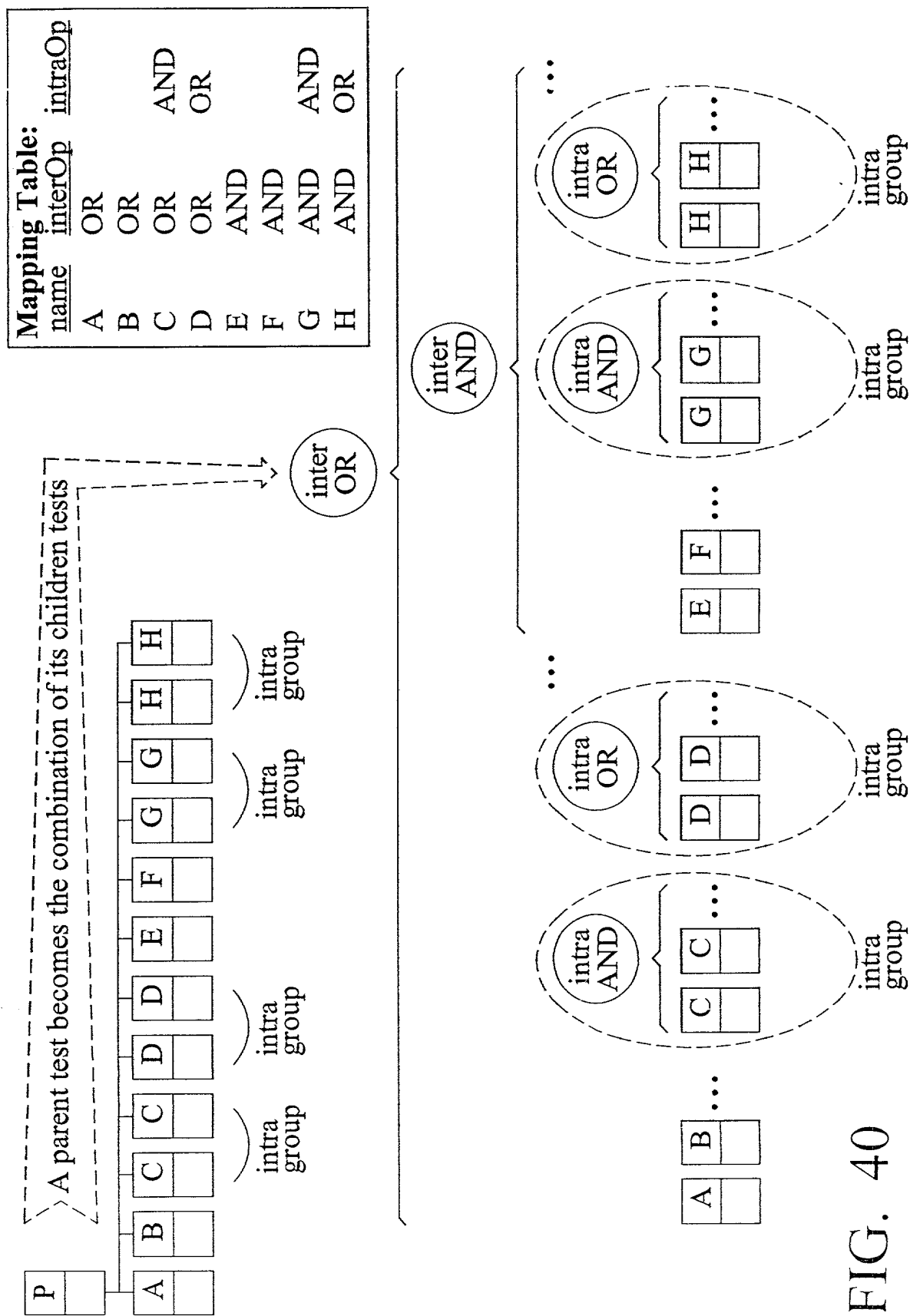
- mapped location
- mapped operation
- query value

reference point in ProgramDS
comparison to be performed
right operand of comparison

interOp == OR
interOp == AND

/Program/CreationmetaInformation/
Title/TitleText
string_equals
"Westside Story"

FIG. 39



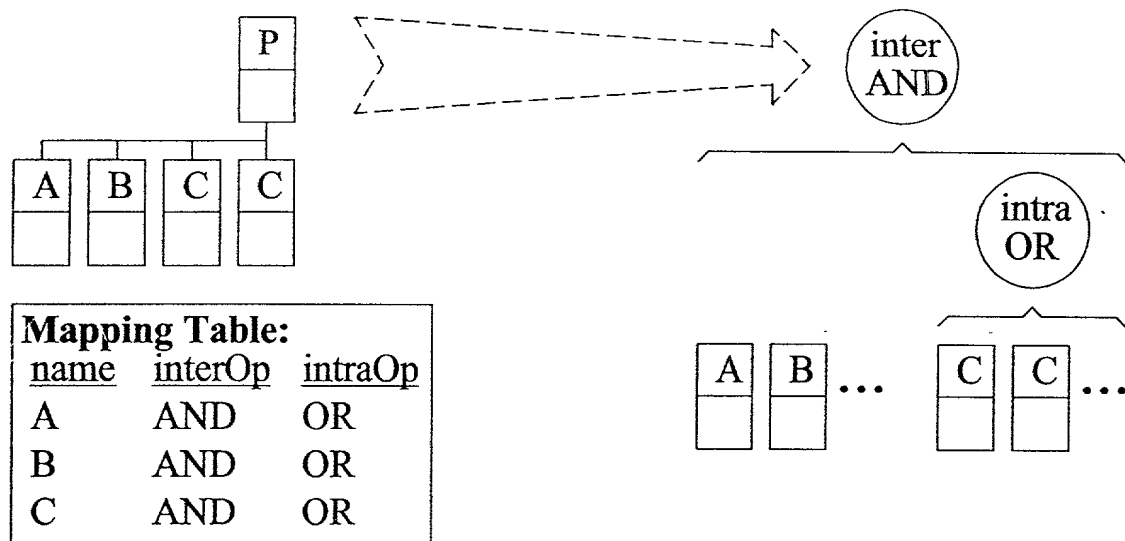


FIG. 41

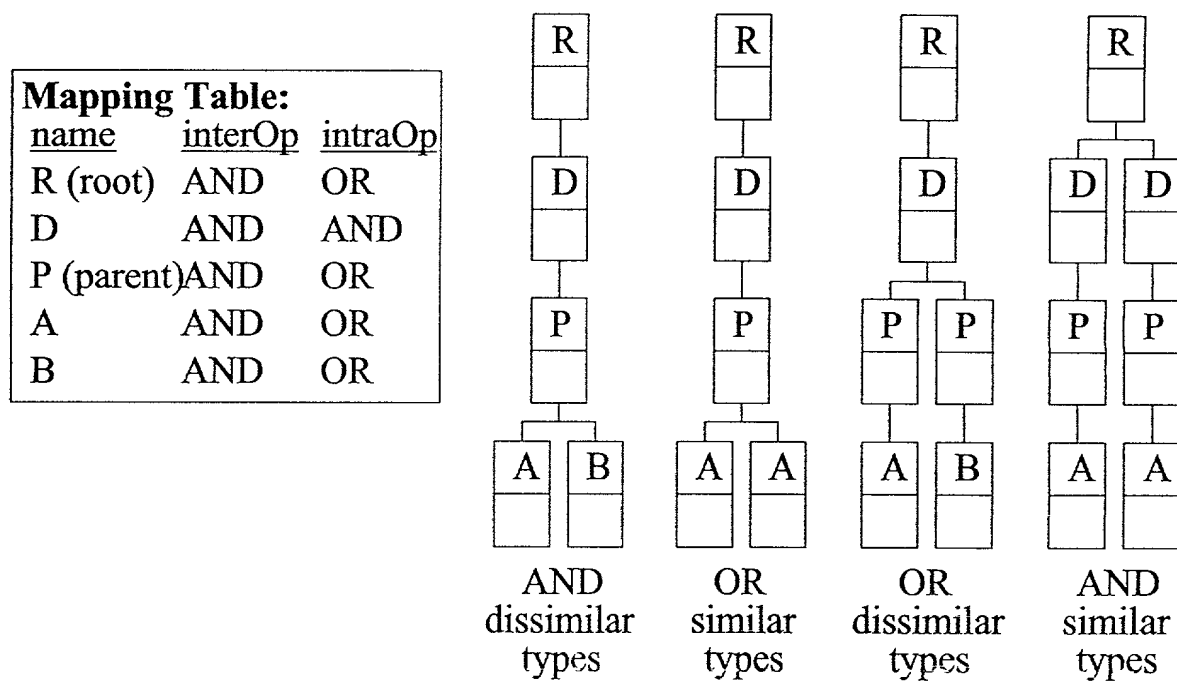
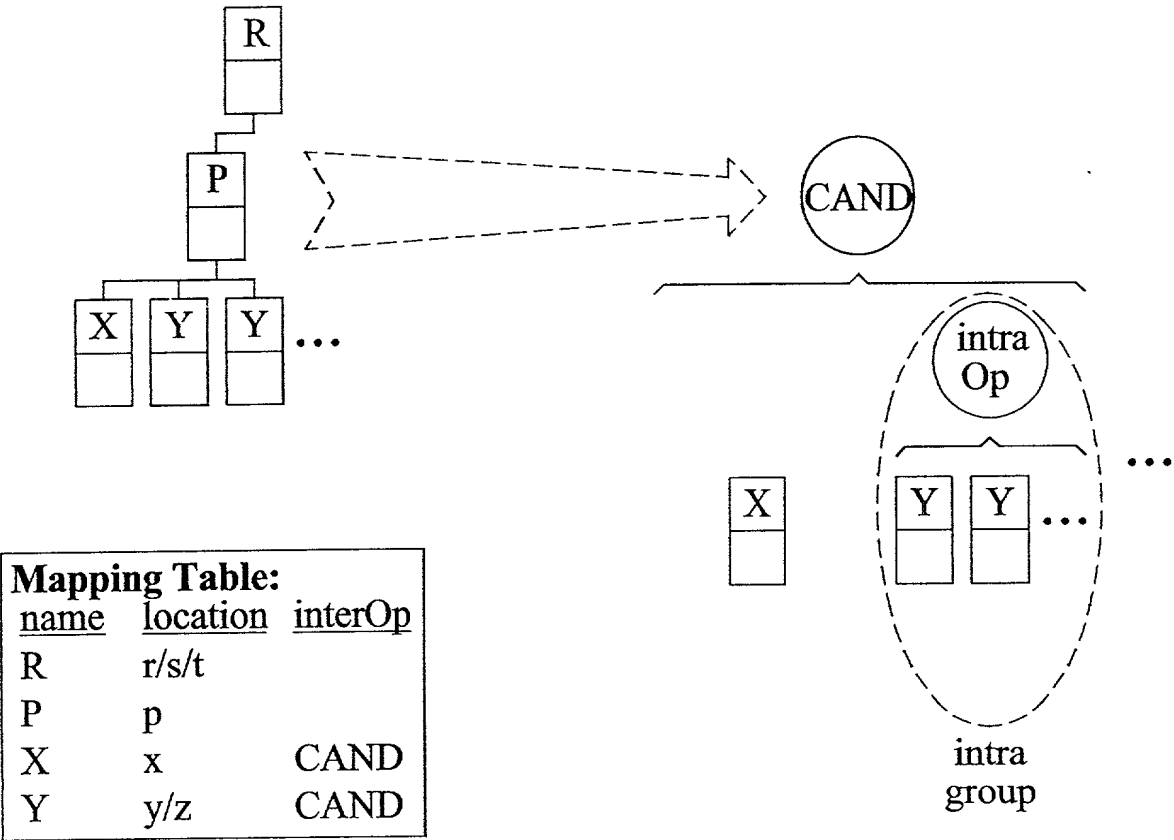


FIG. 42

User Preference Description



Program Description

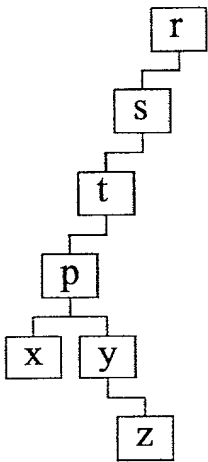


FIG. 43

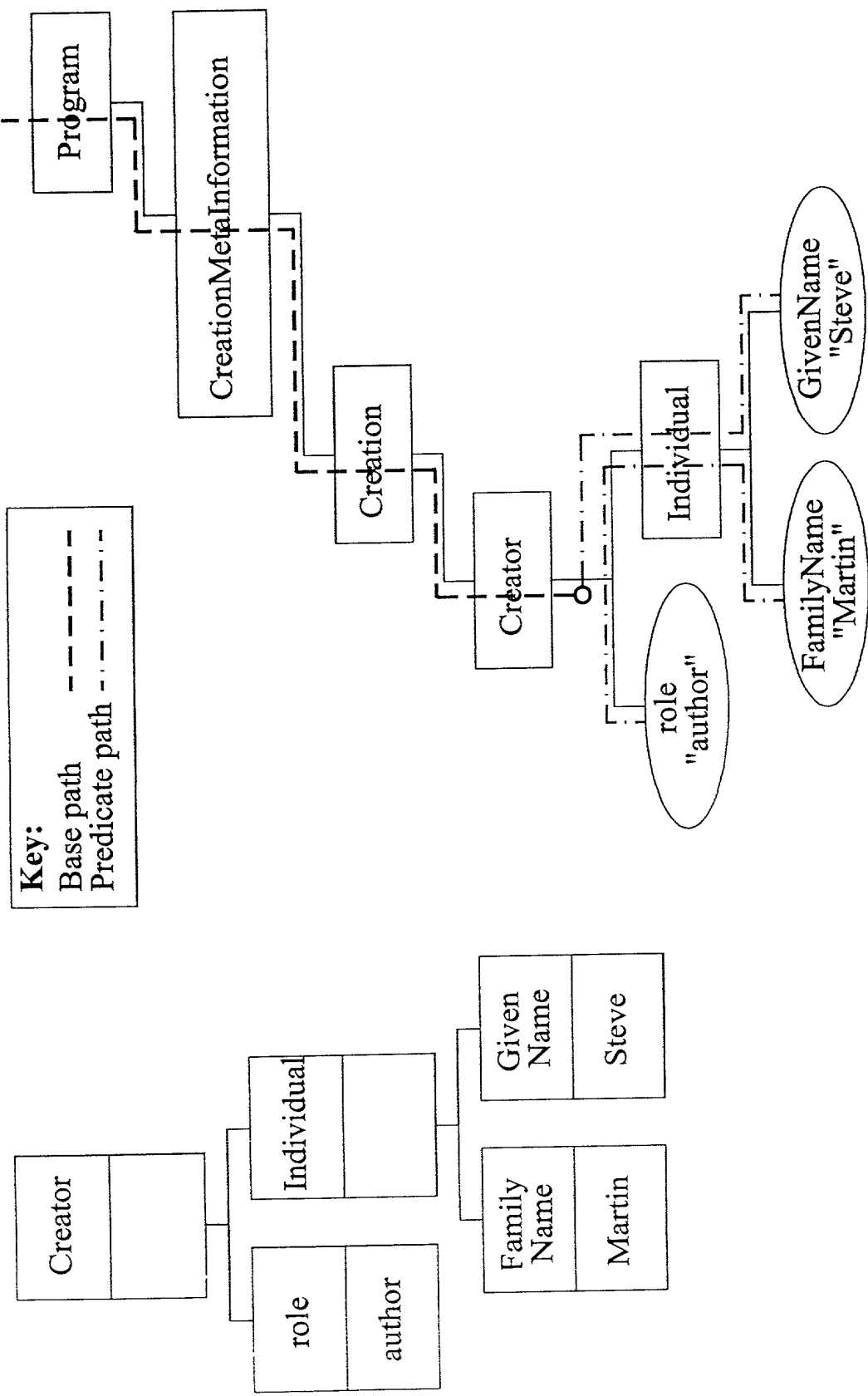


FIG. 44A

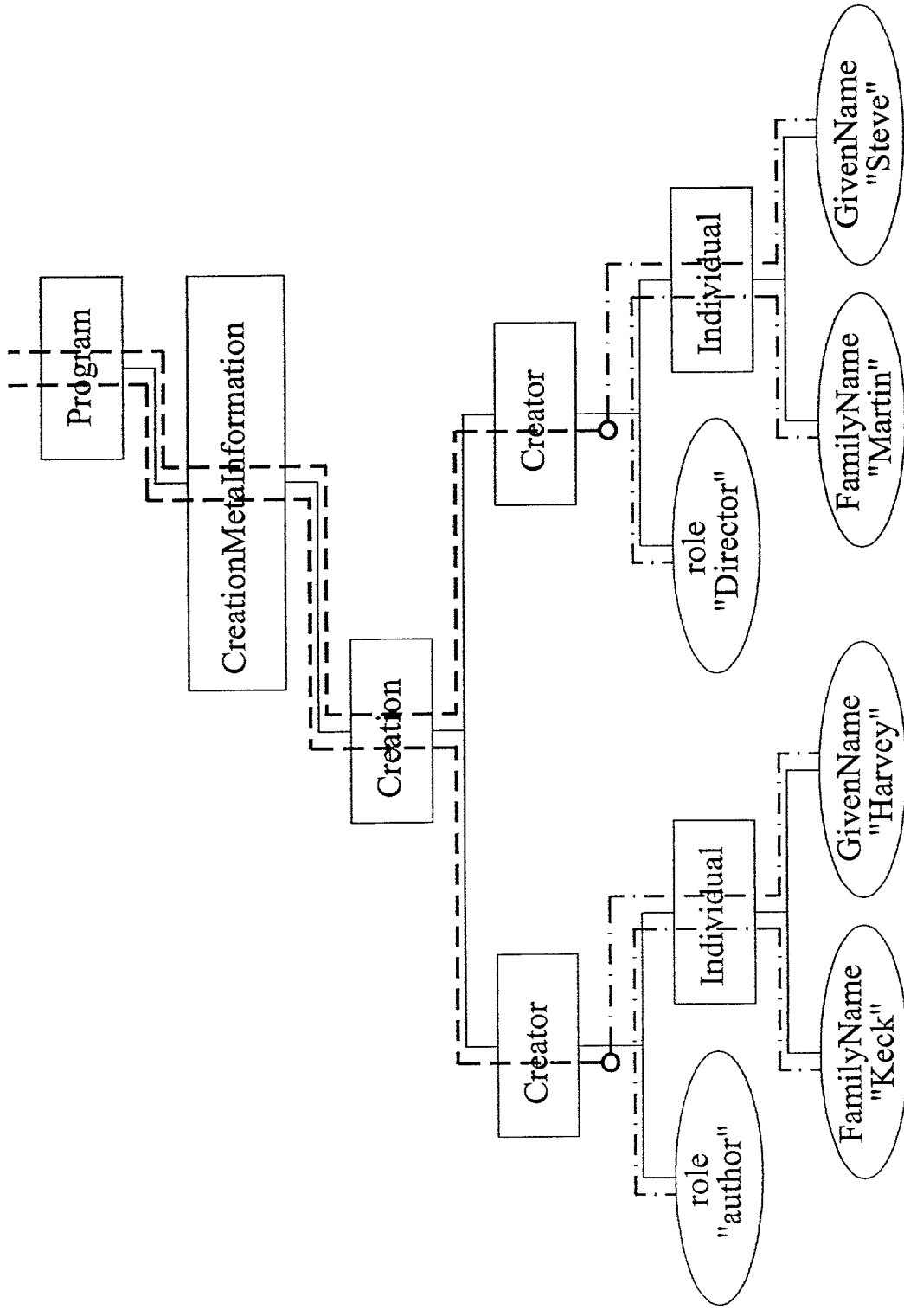


FIG. 44B

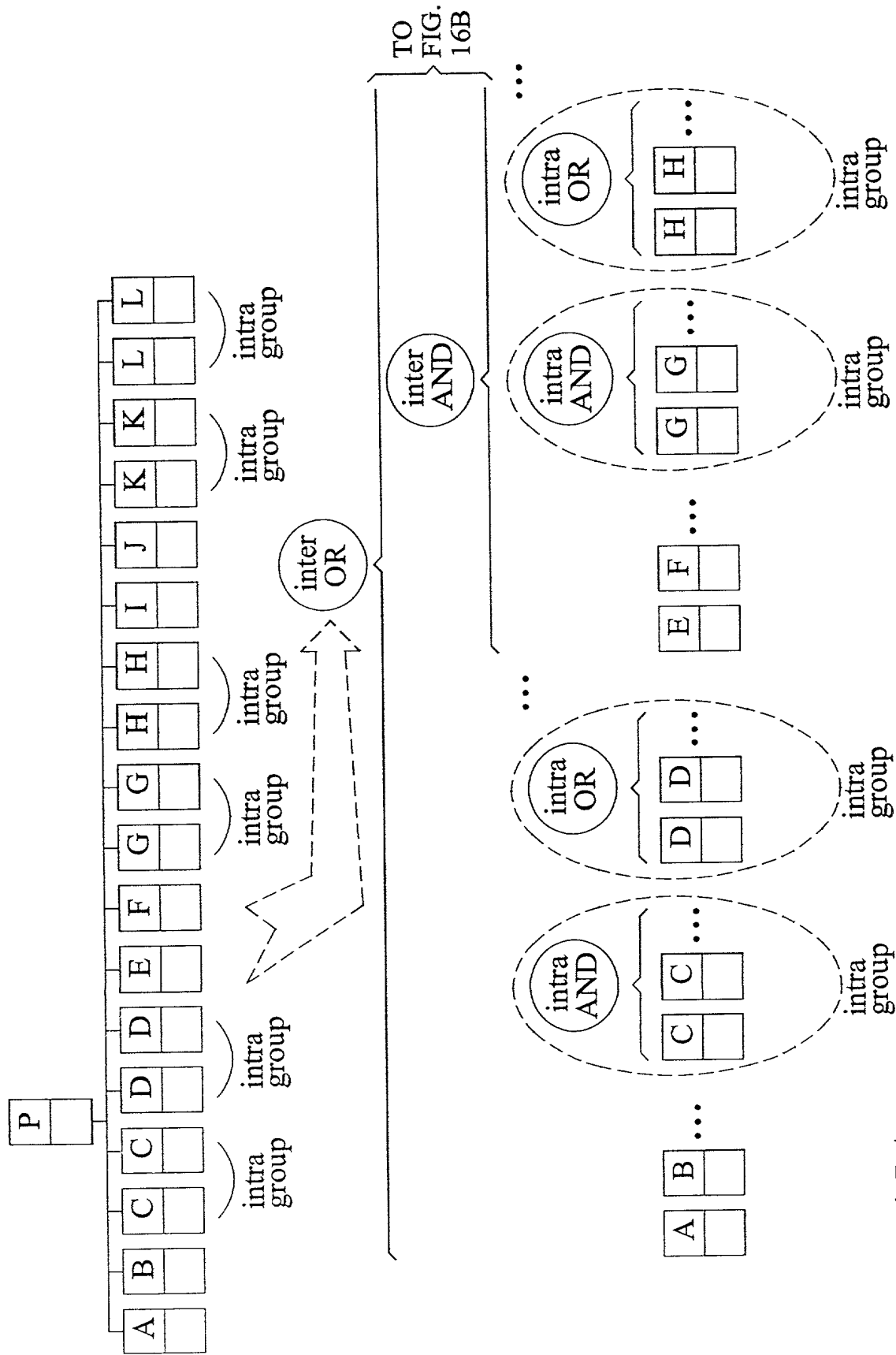
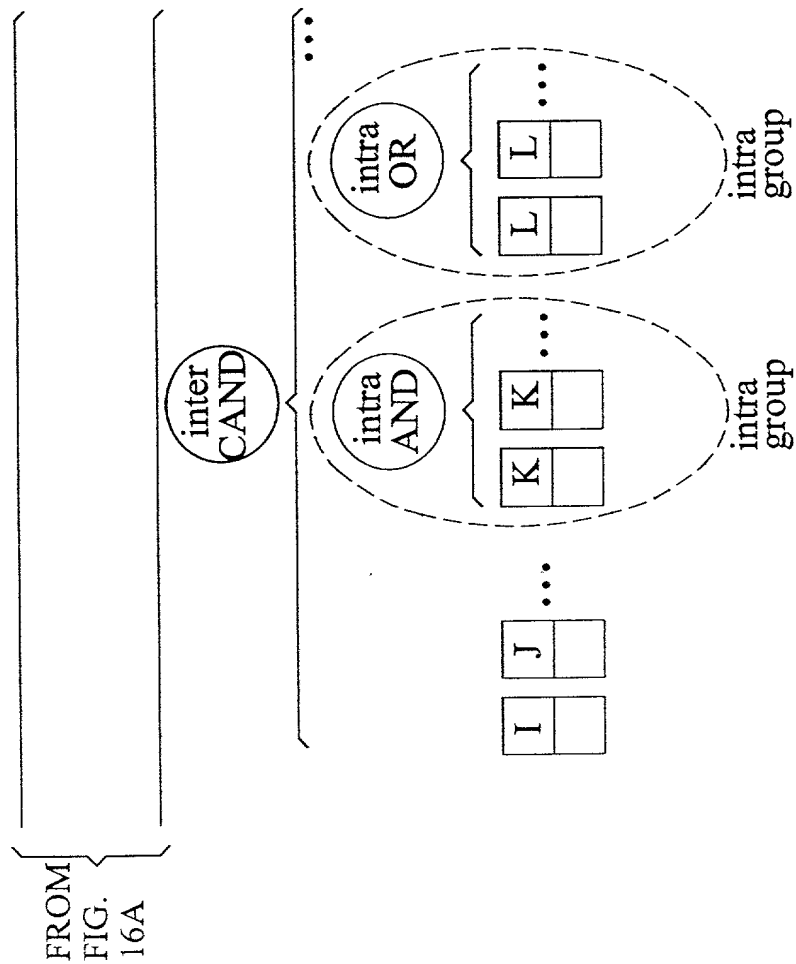


FIG. 45A



Mapping Table:

| name | interOp | intraOp |
|------|---------|---------|
| A | OR | |
| B | OR | |
| C | OR | AND |
| D | OR | OR |
| E | AND | |
| F | AND | |
| G | AND | AND |
| H | AND | OR |
| E | CAND | |
| F | CAND | |
| G | CAND | AND |
| H | CAND | OR |

FIG. 45B

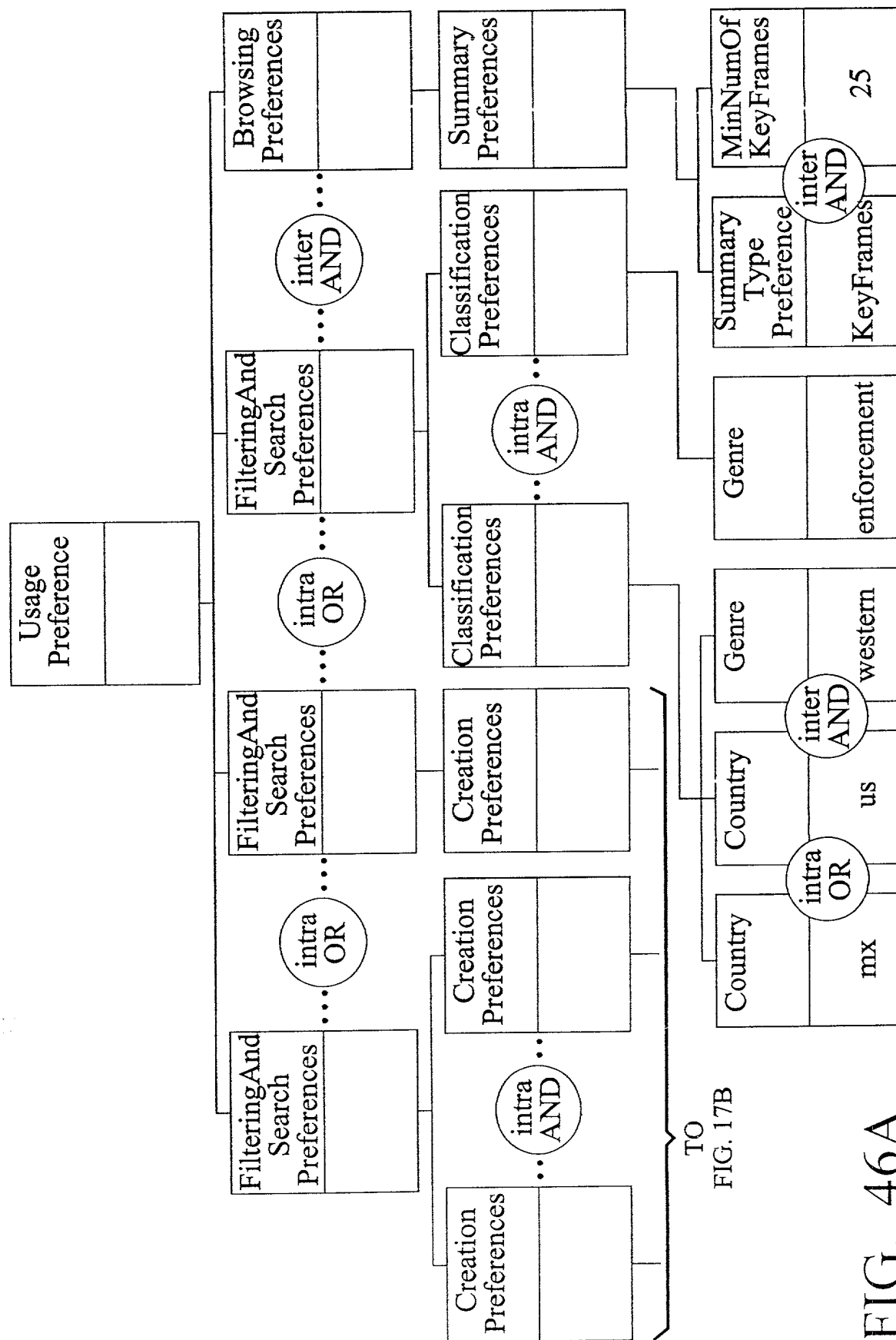


FIG. 46A

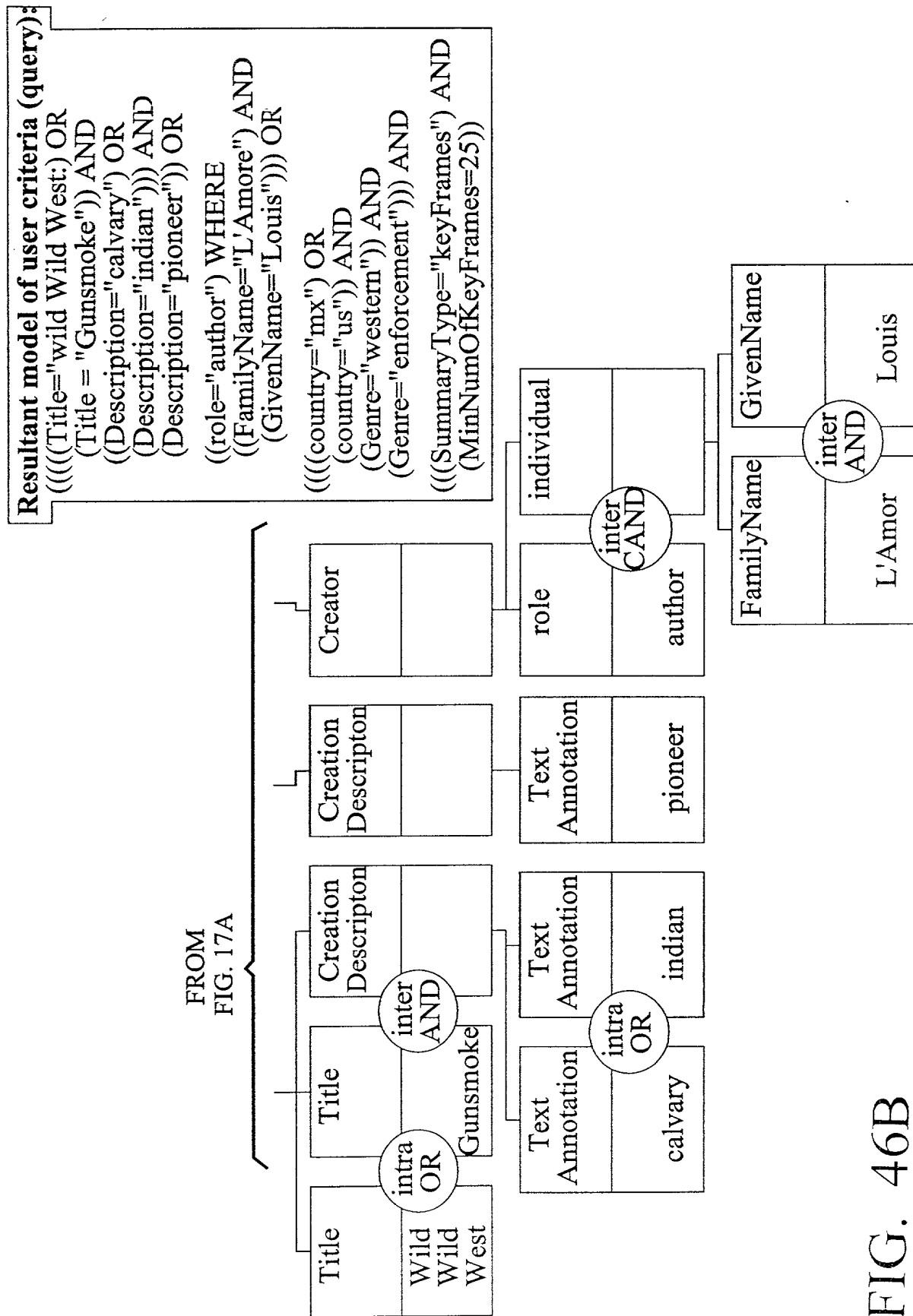


FIG. 46B

| <u>Name</u> | <u>Location</u> | <u>TestOp</u> <u>InterOp</u> <u>IntraOp</u> | | |
|---|--|---|-----|-----|
| Level 0 Preferences | | | | |
| FilteringAndSearchPreferences | null | NA | NA | OR |
| BrowsingPreferences | null | NA | NA | OR |
| Level 1 Preferences | | | | |
| Children of FilteringAndSearchPreferences | | | | |
| CreationPreferences | /Program/*CreationMetaInformation /*Creation | NA | AND | AND |
| ClassificationPreferences | /Program/*CreationMetaInformation /*Classification | NA | AND | AND |
| SourcePreferences | /Program/*UsageMetaInformation | NA | AND | AND |
| ClassificationPreferences/Country | /Program/*CreationMetaInformation /*Classification/*Country | STR_ISUB | AND | OR |
| Children of BrowsingPreferences | | | | |
| SummaryPreferences | /Program/*Summarization | NA | AND | AND |
| Level 2 Preferences | | | | |
| Children of CreationPreferences | | | | |
| Title | /*Title/TitleText | STR_ISUB | AND | OR |
| CreationDescription | /*CreationDescription | NA | AND | OR |
| Creator | /*Creator | NA | AND | OR |
| CreationLocation | /*CreationLocation | NA | AND | OR |
| CreationDate | /*CreationDate | NA | AND | OR |
| CreationMaterial | /*CreationMaterial | NA | AND | OR |
| CreationLocation/Country | /*CreationLocation/Country | STR_ISUB | AND | OR |
| Children of ClassificationPreferences | | | | |
| Language | /*Language | STR_ISUB | AND | OR |
| Genre | /*Genre | STR_ISUB | AND | OR |
| PackageType | /*PackageType | STR_ISUB | AND | OR |

FIG. 47A

| Name | Location | TestOp InterOp IntraOp | | | |
|---------------------------------|---|------------------------|------|----|--|
| Children of SourcePreferences | | | | | |
| PublicationType | /*Publication/PublicationType | STR_ISUB | AND | NA | |
| Children of SummaryPreferences | | | | | |
| SummaryTypePreference | /*HierarchicalSummary/%summaryType | STR_ISUB | AND | OR | |
| SummaryName | /*HierarchicalSummary/%name | STR_ISUB | AND | OR | |
| NumOfKeyFrames | /*HierarchicalSummary/*HighlightLevel %numberOfKeyFrames | VAL_EQ | AND | OR | |
| MinNumOfKeyframes | /*HierarchicalSummary/*HighlightLevel %numberOfKeyFrames | VAL_GTE | AND | OR | |
| MaxNumOfKeyframes | /*HierarchicalSummary/*HighlightLevel %numberOfKeyFrames | VAL_LTE | AND | OR | |
| SmmryDuration | /*HierarchicalSummary/*HighlightLevel /Duration | VAL_EQ | AND | OR | |
| MinSummaryDuration | /*HierarchicalSummary/*HighlightLevel /Duration | VAL_GTE | AND | OR | |
| MaxSummaryDuration | /*HierarchicalSummary/*HighlightLevel /Duration | VAL_LTE | AND | OR | |
| Level 3 Preferences | | | | | |
| Children of CreationDescription | | | | | |
| Who | /Who | STR_ISUB | AND | OR | |
| TextAnnotation | /TextAnnotation | STR_ISUB | AND | OR | |
| Children of Creator | | | | | |
| role | /role | STR_IEQ | CAND | NA | |
| Children of Creator, RealPerson | | | | | |
| Individual | /Individual | NA | AND | OR | |
| QuasiPerson | /QuasiPerson | NA | AND | OR | |
| Children of CreationLocation | | | | | |

FIG. 47B

| | | | | | |
|--|-----------------------------------|-----|------|------|----|
| PlaceName | /PlaceName | STR | ISUB | AND | OR |
| PlaceRole | /PlaceRole | STR | ISUB | AND | NA |
| Planet | /Planet | STR | ISUB | AND | NA |
| GPSCoordinates | /GPSCoordinates | STR | ISUB | AND | NA |
| Region | /Region | STR | ISUB | AND | NA |
| PostingIdentifier | /PostingIdentifier | STR | ISUB | AND | NA |
| AdministrativeUnit | /AdministrativeUnit | STR | ISUB | AND | NA |
| PostalAddress | /PostalAddress | STR | ISUB | AND | NA |
| InternalCoordinates | /InternalCoordinates | STR | ISUB | AND | NA |
| <i>Children of CreationMaterial</i> | | | | | |
| device_instrument | /device_instrument | STR | ISUB | AND | NA |
| device_setting | /device_setting | STR | ISUB | AND | NA |
| Level 4 Preferences | | | | | |
| <i>Children of Individual, ContactPerson</i> | | | | | |
| FamilyName | /FamilyName | STR | ISUB | CAND | NA |
| GivenName | /GivenName | STR | ISUB | CAND | OR |
| SecondFamilyName | /SecondFamilyName | STR | ISUB | CAND | OR |
| Initial | /Initial | STR | ISUB | CAND | OR |
| ProfessionalName | /ProfessionalName | STR | ISUB | CAND | OR |
| <i>Children of QuasiPerson</i> | | | | | |
| CharacterName | /CharacterName | STR | ISUB | CAND | OR |
| RealPerson | /RealPerson | NA | | CAND | OR |
| <i>Children of Organization</i> | | | | | |
| OrganizationName | /OrganizationName | STR | ISUB | CAND | NA |
| ContactPerson | /ContactPerson | NA | | CAND | OR |
| Address | /Address | NA | | CAND | OR |
| Preference Types | | | | | |
| FilteringAndSearchPreferenceType | /FilteringAndSearchPreferenceType | NA | | NA | OR |
| BrowsingPreferenceType | /BrowsingPreferenceType | NA | | NA | OR |

FIG. 47C

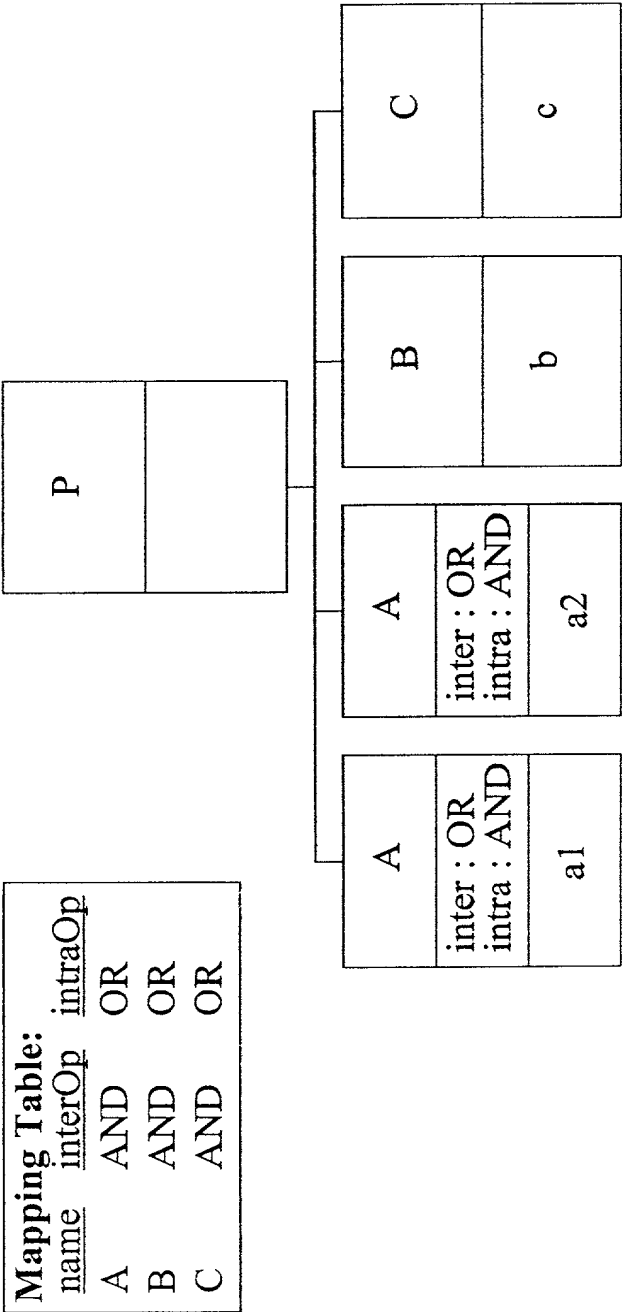


FIG. 48

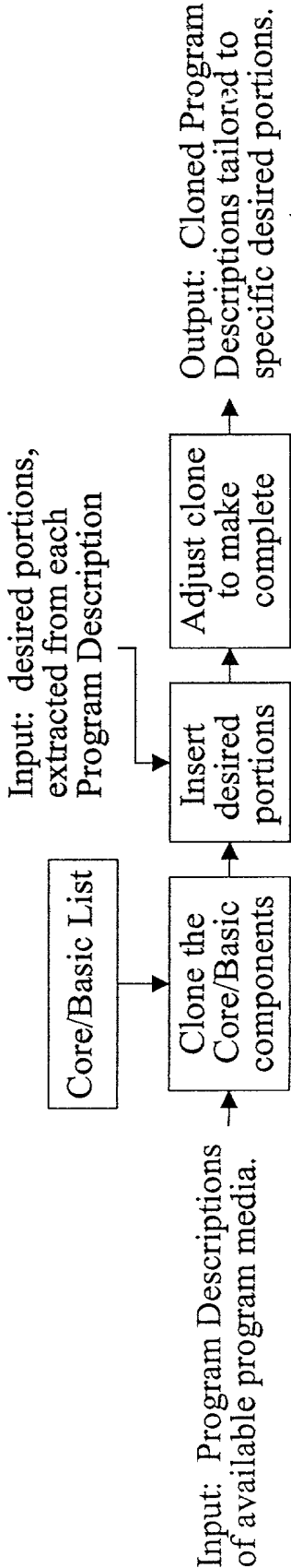


FIG. 49

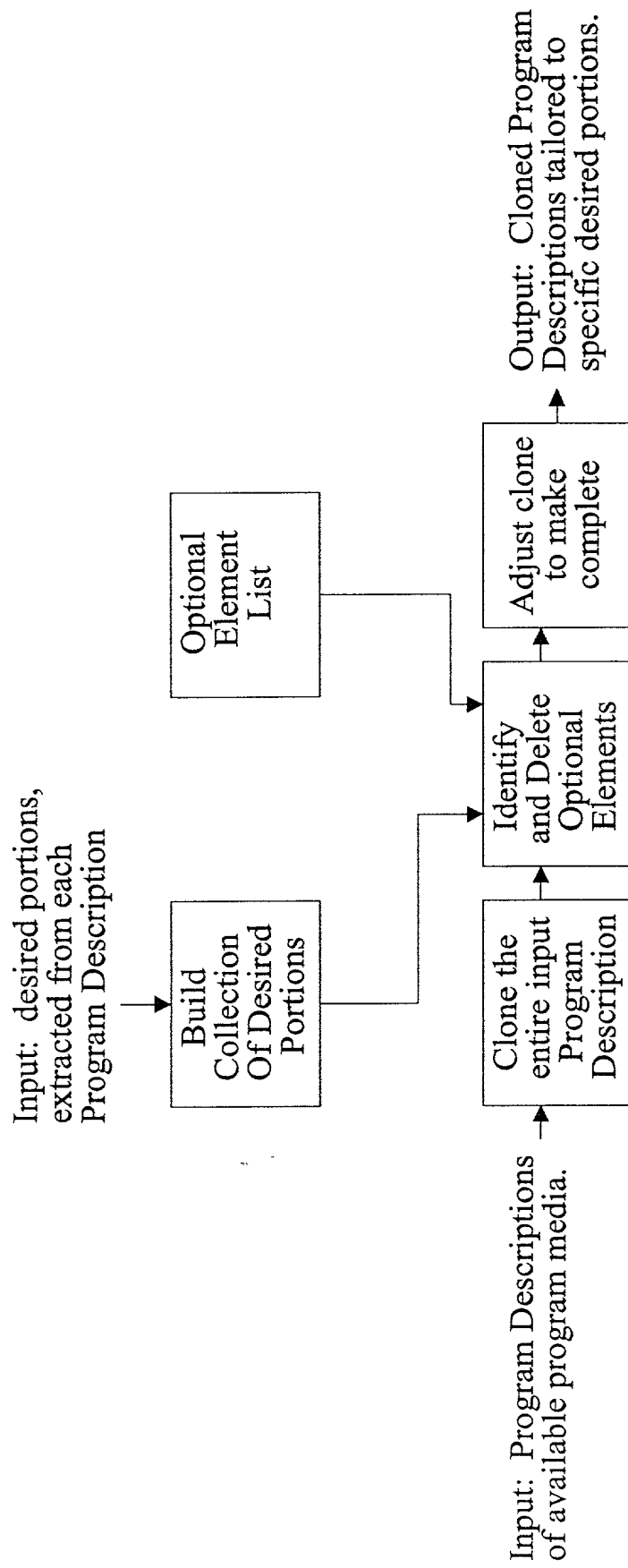


FIG. 50

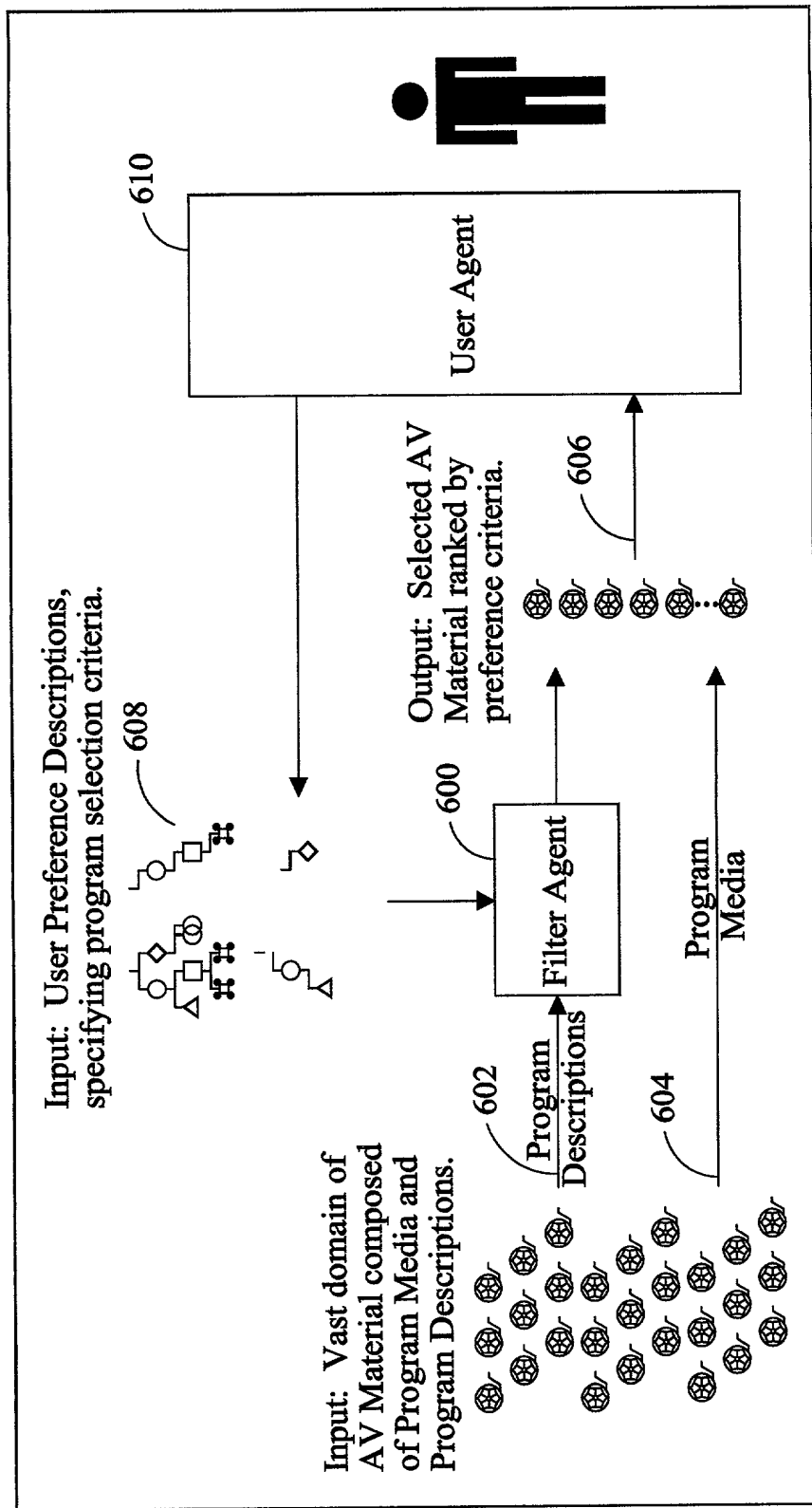


FIG. 51

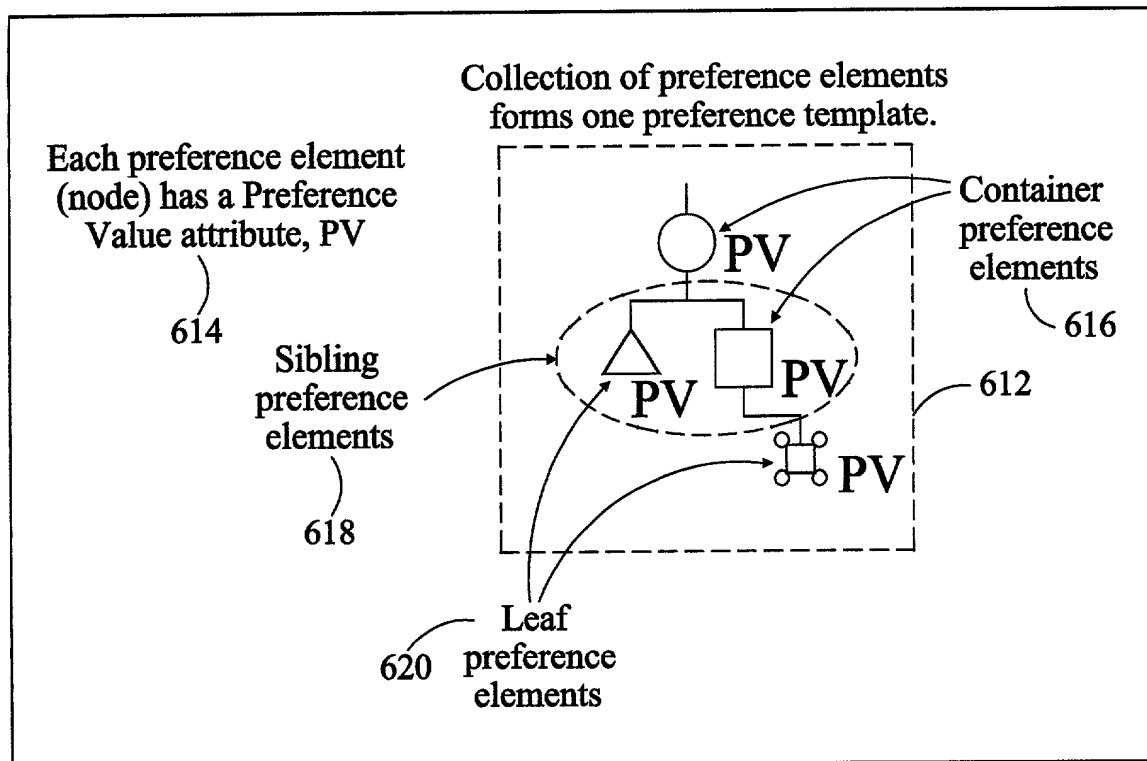


FIG. 52

| Preference Values | |
|-------------------|---------------|
| 620 | Nominal Value |
| 622 | Neutral Value |
| 624 | Maximum Value |
| 626 | Minimum Value |
| 628 | Other Value |

FIG. 53

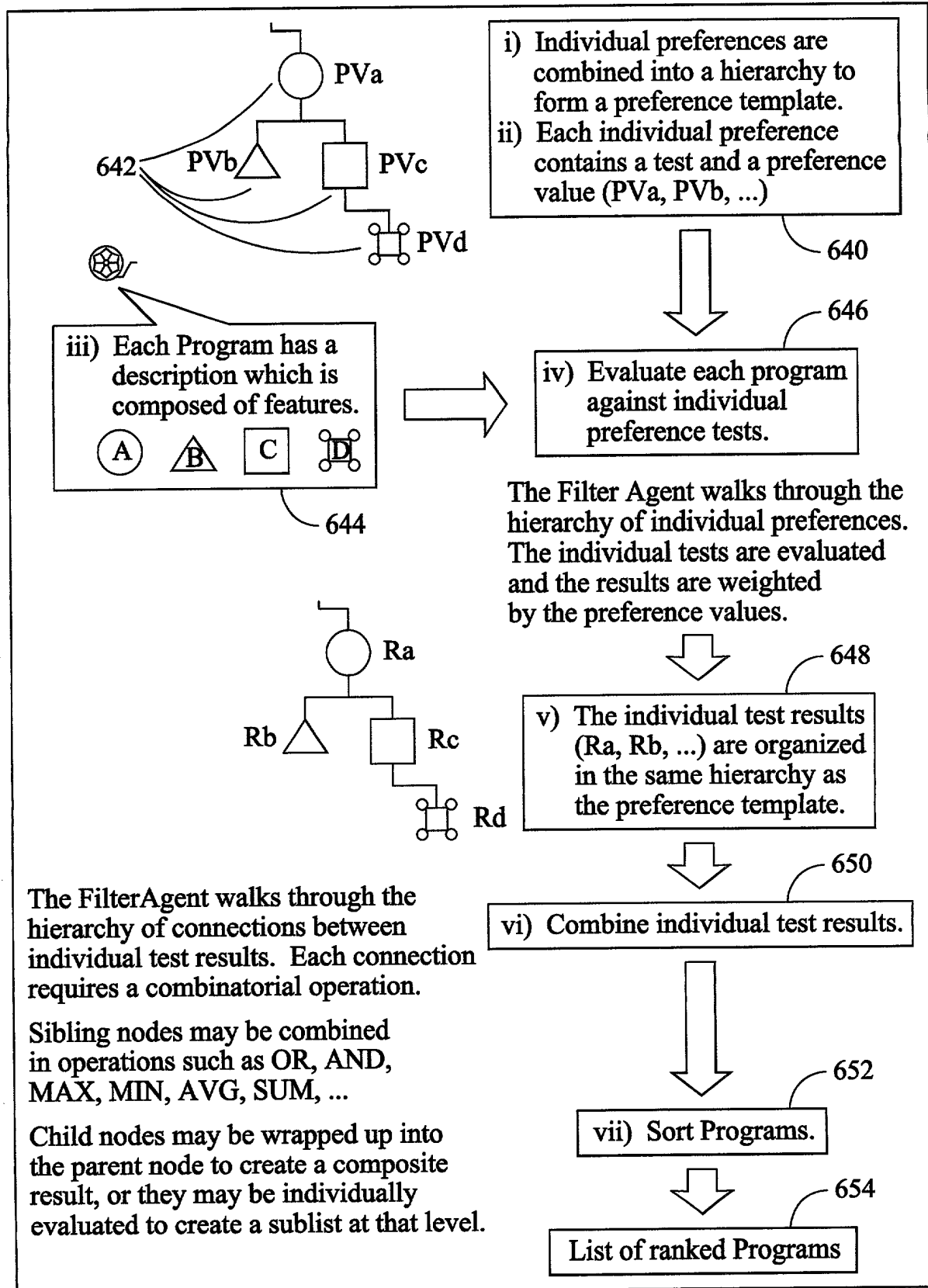


FIG. 54

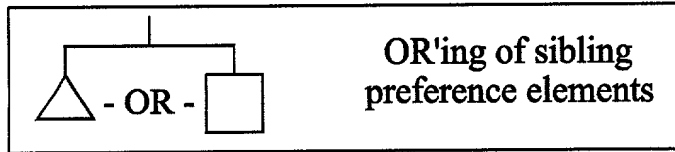


FIG. 55

| Program | | PVa = 1 OR PVb = 1 | | Score | Rank |
|---------|-----------------|--------------------|---|-------|------|
| J | A = B = 1 | 1 | 1 | 2 | 1 |
| K | A = 1, B = 0 | 1 | 0 | 1 | 2 |

FIG. 56

| Program | | PVa = 1 OR PVb = 1 | | Score | Rank |
|---------|--------------------|--------------------|------|-------|------|
| J | A = 1, B = 0.01 | 1 | 0.01 | 1.01 | 1 |
| K | A = 1, B = 0 | 1 | 0 | 1 | 2 |

FIG. 57

| Program | | PVa = 4 OR PVb = 1 OR PVc = 1 | | | Score | Rank |
|---------|---------------------|-------------------------------|---|---|-------|------|
| J | A = 1, B = C = 0 | 4 | 0 | 0 | 4 | 1 |
| K | A = 0, B = C = 1 | 0 | 1 | 1 | 2 | 2 |

FIG. 58

| Program | | PVa = 4 OR PVb = 1 OR PVc = 1 | | | Score | Rank |
|---------|-----------------------|-------------------------------|---|---|-------|--------|
| J | A = 0.4, B = C = 0 | 1.6 | 0 | 0 | 1.6 | 3 |
| K | A = 0.5, B = C = 0 | 2 | 0 | 0 | 2 | 2 tied |
| L | A = 0, B = C = 1 | 0 | 1 | 1 | 2 | 2 tied |
| M | A = 0.1, B = C = 1 | 0.4 | 1 | 1 | 2.4 | 1 |

FIG. 59

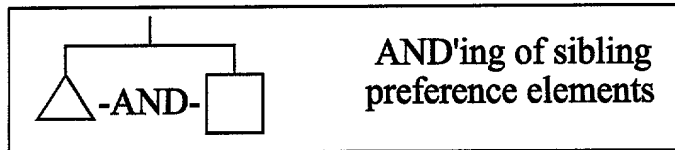


FIG. 60

| Program | | PVa = 1 AND PVb = 1 | | Score | Rank |
|---------|-------------------|---------------------|-----|-------|------|
| J | A = B = 1 | 1 | 1 | 1 | 1 |
| K | A = 1, B = 0.5 | 1 | 0.5 | 0.75 | 2 |

FIG. 61

| Program | | PVa = 1 AND PVb = 1 | | Score | Rank |
|---------|-------------------|---------------------|-----|-------|------|
| J | A = B = 0.6 | 0.6 | 0.6 | 0.6 | 1 |
| K | A = 1, B = 0.1 | 1 | 0.1 | 0.55 | 2 |
| L | A = B = 0.5 | 0.5 | 0.5 | 0.5 | 3 |

FIG. 62

| Program | | PVa = 1 AND PVb = 1 | | Score | Rank |
|---------|-------------------|---------------------|-----|-------|------|
| J | A = 1, B = 0.9 | 1 | 0.9 | 0.95 | 1 |
| K | A = B = 0.9 | 0.9 | 0.9 | 0.9 | 2 |
| L | A = 1, B = 0 | 1 | 0 | 0.5 | 3 |

FIG. 63

| Program | | PVa = 1 AND PVb = 1 | | Score | Rank |
|---------|-----------------|---------------------|---|-------|--------|
| L | A = 1, B = 0 | 1 | 0 | 0.5 | reject |

FIG. 64

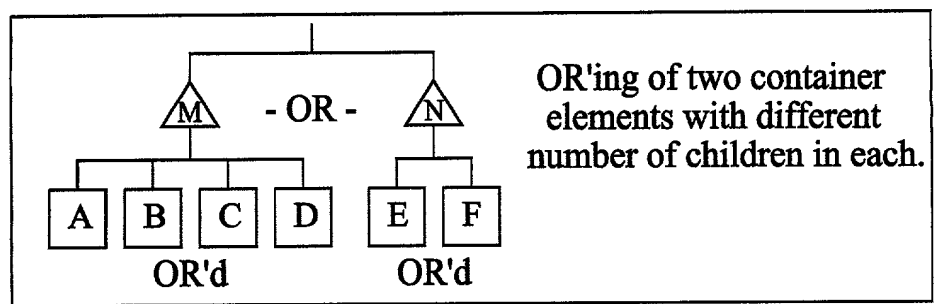


FIG. 65

| Program | | PV _x = 1 OR PV _y = 1 | | | | | | Score | Rank |
|---------|-------------------------|--|---|---|---|--|---|-------|------|
| | | PV _a =1 OR PV _b =1 OR PV _c =1 OR PV _d =1 | | | | PV _d =1 OR PV _e =1 | | | |
| | | | | | | | | | |
| J | A=B=C=1, D=E=F=0 | 1 | 1 | 1 | 0 | 0 | 0 | 3 | 1 |
| K | A=B=C=D =0, E=F=1 | 0 | 0 | 0 | 0 | 1 | 1 | 2 | 2 |

FIG. 66

| Program | | PV _x = 1 OR PV _y = 1 | | | | | | Score | Rank |
|---------|-------------------------|--|---|---|---|--|---|-------|------|
| | | PV _a =1 OR PV _b =1 OR PV _c =1 OR PV _d =1 | | | | PV _d =2 OR PV _e =2 | | | |
| | | | | | | | | | |
| J | A=B=C=1, D=E=F=0 | 1 | 1 | 1 | 0 | 0 | 0 | 3 | 2 |
| K | A=B=C=D =0, E=F=1 | 0 | 0 | 0 | 0 | 2 | 2 | 4 | 1 |

FIG. 67

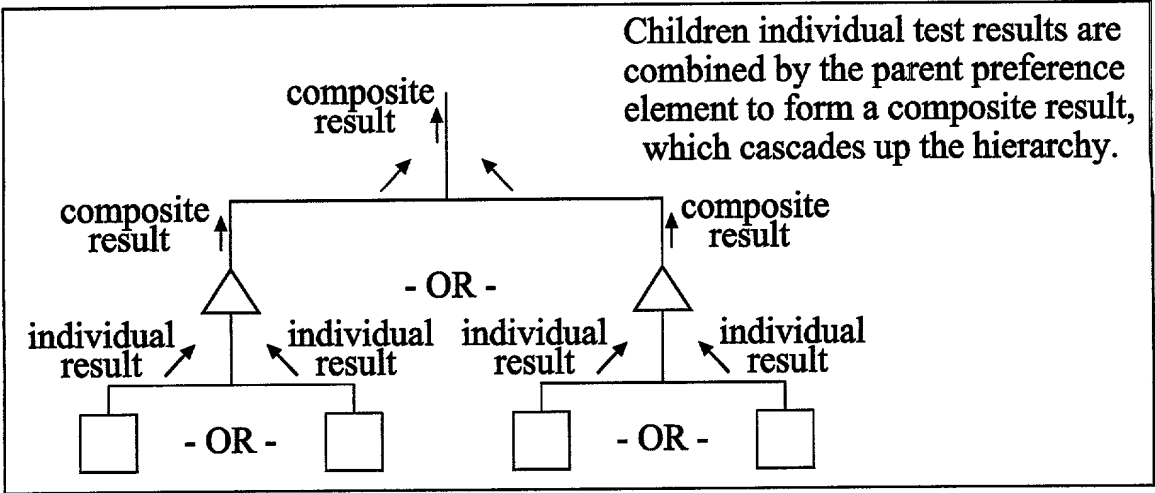


FIG. 68

| Program | | PV _x = 0.8 | | OR | | PV _y = 1 | | Score | Rank |
|---------|-----------------|-----------------------|----|--------------------|--------------------|---------------------|----------------------|-------|------|
| | | PV _a =1 | OR | PV _b =1 | PV _c =1 | OR | PV _d =0.5 | | |
| J | A=1, B=C=D=0 | 0.8 | | 0 | 0 | | 0 | 0.8 | 1 |
| K | A=B=C=0, D=1 | 0 | | 0 | 0 | | 0.5 | 0.5 | 2 |

FIG. 69

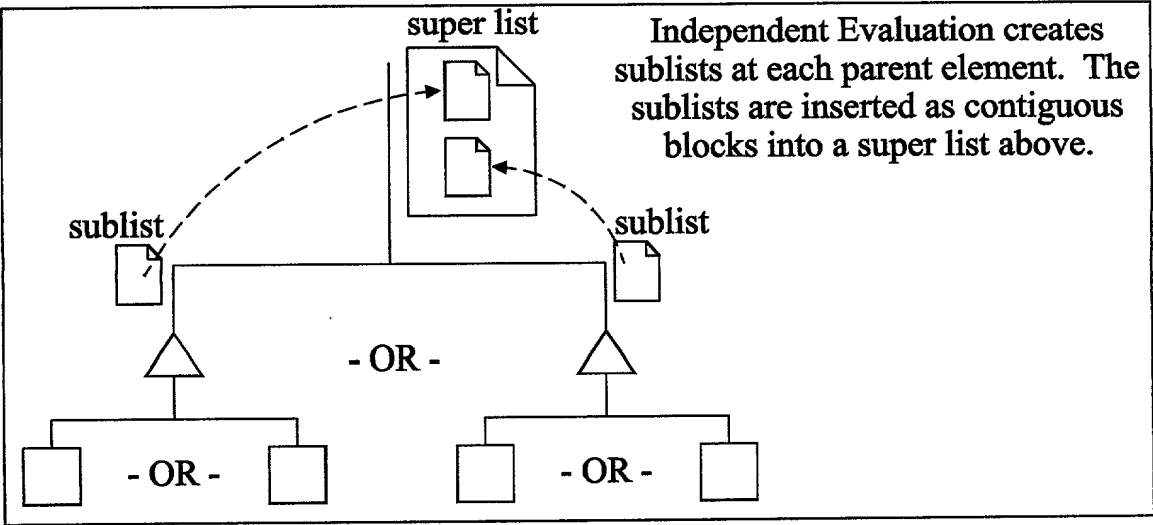


FIG. 70

| Program | | PVa = 1 OR PVb = 1 | | Score | Rank |
|---------|-------------------|--------------------|---|-------|--------|
| J | A = 1, B=C=D=0 | 1 | 0 | 1 | 1 |
| K | A=B=C=0, D = 1 | 0 | 0 | 0 | reject |

FIG. 71

| Program | | PVc=1 OR PVd=0.5 | | Score | Rank |
|---------|-------------------|------------------|-----|-------|--------|
| J | A = 1, B=C=D=0 | 0 | 0 | 0 | reject |
| K | A=B=C=0, D = 1 | 0 | 0.5 | 0.5 | 1 |

FIG. 72

Merging of SubLists into SuperList:

| SubLists sorted by Preference Value | Programs in SubList | Rank |
|--|---------------------|------|
| SubList Y with PVy = 1 | K | 1 |
| SubList X with PVx = 0.8 | J | 2 |

FIG. 73

| Program | | PVx = 2 AND PVy = 1 | | | | Score | Rank |
|---------|-------------------|---------------------|----------------|---|-----|-------|------|
| | | PVa=1 OR PVb=1 | PVc=1 OR PVd=1 | | | | |
| J | A=0.9, B=C=D=1 | 0.9 | 1 | 1 | 1 | 2.9 | 2 |
| K | A=B=C=1, D=0.9 | 1 | 1 | 1 | 0.9 | 2.95 | 1 |

FIG. 74

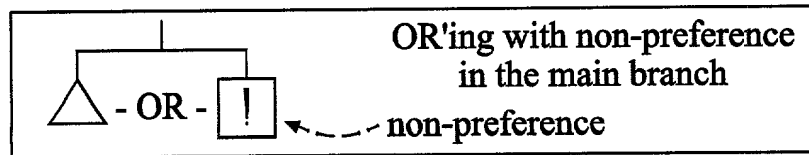


FIG. 75

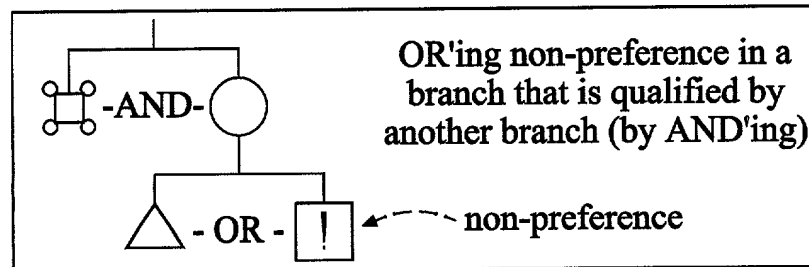


FIG. 76

| Program | | PVa = 1 OR PVb = -1 | | Score | Rank |
|---------|-----------------|---------------------|---|-------|------|
| J | A = B = 1 | 1 | 0 | 1 | 2 |
| K | A = 1, B = 0 | 1 | 1 | 2 | 1 |

FIG. 77

| Program | | PVa = 1 AND PVb = -1 | | Score | Rank |
|---------|--------------------|----------------------|-------|-------|------|
| J | A = 1, B = 0.01 | 1 | -0.01 | 0.495 | 2 |
| K | A = 1, B = 0 | 1 | 0 | 0.5 | 1 |

FIG. 78

| Program | | PVa=1 AND PVb=-100 | | Score | Rank |
|---------|--------------------|--------------------|----|-------|--------|
| J | A = 1, B = 0.01 | 1 | -1 | 0 | reject |

FIG. 79

| Program | | PVa = 1 AND PVb = -1 | | Score | Rank |
|---------|--------------------|----------------------|-------|-------|--------|
| J | A = 1, B = 0.01 | 1 | -0.01 | NA | reject |

FIG. 80